Mill in the Valley

A centennial history of Arthur Ellis & Co. Limited

Maurice Kelly

MAURICE KELLY
M.A. (Hons.), Ll.B.

He was born in Balclutha and educated at Waitaki Boys' High School and the University of Otago. During this time he got to know the Ellis family. Subsequently he worked and travelled widely in Europe and Asia and on coming back to New Zealand followed a career as University lecturer and secondary school teacher. He is now an inspector of secondary schools in Auckland. He has also written "Golf in New Zealand—a Centennial History" and a novel "Mandarin's Way".

120

With the Compliments of the

Board of Directors

of

Arthur Ellis & Co. Ltd.

1977

MILL IN THE VALLEY

A CENTENNIAL HISTORY OF ARTHUR ELLIS AND CO. LIMITED

by

MAURICE KELLY

"The Company has always been careful to maintain as high a standard in the hidden interiors of its products as in the visible exteriors."

—ROLAND ELLIS, 1959

ARTHUR ELLIS AND CO. LIMITED, DUNEDIN
1977

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CONTENTS

Landfall - - - - - - - - - - - 7

A Time of Troubles - - - - - - - - - 11

The Era of Arthur Ellis - - - - - - - - 20

The Little World of Roland Ellis - - - - - - 30

New Departures - - - - - - - - - 39

The Family Way - - - - - - - - - 49

Perspectives of Change - - - - - - - - 61

Probing For the Jackpot - - - - - - - - 73

End and Beginning - - - - - - - - - 85

ILLUSTRATIONS

Page

Inside front and back cover: "The Kaikorai Valley Factory, 1882".

16 Harbourmasters cottage, Catlins River.

Sale notice of the "Surat".

Ephraim Ellis and sons; Christiana Ellis; Arthur and Agnes Ellis.

Flock Mill and Workers, 1906.

Monarch of the roads; A picnic occasion; Ordeal by steamroller.

44 Arthur Ellis, 1868-1945.

The Kaikorai factory, 1924; The Kaikorai factory, 1938.

The Annual Ball; The company rugby team, 1937.

The 1930 innerspring mattress; Bedding department, 1930.

Work party, Kaikorai Bowling Club; Roland Ellis; Maurice Ellis and Norman McLean.

Wartime delivery; VE Day celebration; Delivery by tractor.

Sewing room, Kaikorai; Friendly elephant testing mattress; Company social.

Sleeping bag sewing room, Hornby; Hornby factory.

72 Murray Ellis and Sir Edmund Hillary; "Fairydown" sleeping bag used in the ascent of Everest.

Feather plant, Kaikorai factory; A fire at the Kaikorai factory, 1970.

Spring-making machine, Hornby; Bonded wadding plant, Kaikorai factory.

Arthur Ellis, Graham Ellis, Oliver Ellis, Lindley Ellis.

AUTHOR'S NOTE

To assemble material—much of it in the form of oral recollection—for this centennial history of Arthur Ellis and Co. Limited has been a valued opportunity to renew old friendships and make new ones. The writer offers his warm thanks to a large number of people—company employees, business associates and customers, Dunedin identities and Ellis family friends—for their interest and co-operation.

The invitation to write the account was accepted with some diffidence. At the outset, there was no means of knowing whether the various sources available would be sufficient to sustain the story without significant gaps and in a manner which would allow a proper exercise of historical judgment. In the event, any fears of that sort have proved groundless.

It would have been more embarrassing if records relating to the Ellis enterprise and family had disclosed sinister skeletons in the cupboard, for the writer has enjoyed close personal ties with members of the family since early childhood. It is a relief to say that there has been no temptation to depart from objectivity. If, as some theorists assume, capitalist growth is synonymous with dirty tricks, these have concealed themselves from the historian's scrutiny uncommonly effectively. As the account suggests, the personal qualities and business methods which created the company appear to invite much more respect and admiration than criticism.

The story would have been very much the poorer in content, flavour and balance without the long and thoughtful memoir written by Mr Arthur Ellis Senior about 1938, in which he reviewed his life and the progress of his enterprise. Nearer to contemporary times, informative and penetrating recollections of recent developments by Mr Graham Ellis have proved invaluable. His extensive collection of early family and company records also gave the project a flying start. It is to be hoped that future executives will continue this tradition of personal commentary and historical interest.

Thanks are due to the Board of the company for the invitation to embark on what has proved to be a fascinating assignment, and to Mr Graham Ellis especially for his encouragement and assistance throughout. A word of gratitude should also be expressed to Mrs Peggy Calder for her patience in wrestling with a difficult longhand manuscript and typing it so admirably.

1 May 1976 G. M. Kelly

LANDFALL

Aboard the sailing vessel "Surat" the afternoon of 31 December 1873 held memorable prospects. Some 94 days earlier, on 28 September, the ship had left Gravesend with 271 passengers bound for a new life in New Zealand. Now, on a sunny afternoon, the "Surat" was clipping along at nearly 9 knots before a moderate westerly. After long weeks amid the empty immensity of the southern ocean, passengers crowding the decks thrilled to the cry of "land ahoy" as the south coast of Stewart Island became clearly visible through a haze. The ship was expected to reach Port Chalmers on New Year's morning.

By the standards of the day, the voyage had passed off pleasantly. As an elapsed time of under 100 days suggested, the weather had been favourable. Food, though plain and lacking in variety, had been plentiful. Porridge or "burgoo", hard ship's biscuits with black treacle, pickled pork and dry corned beef, not to mention brackish water, were in those days standard fare on the high seas. Tiers of bunks in cramped cabins with slapdash partitioning between them were normal enough in migrant vessels plying to the Antipodes. Seasickness, overcrowding, the inescapable noise and presence of people, predictable shipboard clashes and tensions, the languid monotony of day after day—all this, in retrospect, hardly amounted to an ordeal. Like some ritual of purification, the tedium and discomforts of the voyage seemed in hindsight an initiation to the new land.

Struggle and hardship had been the lot of almost all the passengers. Over the previous two years, since Vogel's development policies had begun, New Zealand agents in Britain had been canvassing for migrants, principally among the working classes. The bait of escape from crushing conditions of factory or rural labour, or the grind of domestic service, was no less a motive for many than a system of assisted passages by which intending settlers paid one-third of the fare before embarkation and undertook to reimburse about another half some time after their arrival. For a man, wife and six children on the "Surat", the initial payment amounted to £21.

Like those attracted by the scheme generally, the "Surat's" passengers were a varied lot. Nearly all the names were English, though suggesting a wide variety of localities of origin, with a very few Welsh, Irish and Scots. Three families were unmistakably French. The ship carried 43 married couples, not all young—two-thirds of the husbands had already passed 30—and 75 children. Nearly 50 single men and some 60 single women (the latter nearly all in their teens or early twenties) completed a sample which was typical enough of the influx of the seventies —when 150,000 or so people left the Old Country to seek in New Zealand a better and more abundant life.

The "Surat", a fine vessel of 1,000 tons, was on charter to the recently founded New Zealand Shipping Company, which had a virtual monopoly of the trade in assisted passages. The captain, Edmund J. Johnson, was an experienced master mariner who had been 25 years at sea, but was new to New Zealand waters. The other officers were also well qualified. Otherwise, the ship's complement consisted of a doctor, Thomas Tighe, a sailmaker, carpenter and 29 seamen and stewards. There was cargo in the hold—500 tons of railway iron, drapery goods for the firm of Ross and Glendining, and equipment for a woollen factory projected for the same city by the only man of substance aboard, one Mr Booth. Booth had organised everybody and everything fairly freely—school, Sunday school, devotions and diversions—and had even assisted Captain Johnson in fixing the ship's position. All that, like the rest of the journey, would soon be a matter of memory.

On the evening of New Year's Eve the "Surat" was bowling along up the inhospitable east coast between Bluff and Port Chalmers. Spirits were high, and apparently flowing freely. About nine, after passing the Dog Light, Captain Johnson left the ship to the second officer and went below to entertain female passengers with port wine and gin. The mate was also below in the company of the ship's doctor. About 9.45, a bump was felt throughout the ship, and then three more, one quite violent. A loud, ominous grinding followed—and then silence. The "Surat" had struck, but at once floated free.

Events moved rapidly. Johnson appeared on the poop. Sail was shortened by the watch and the vessel stood out to sea. There was at first no evidence of serious damage. By midnight, however, the news spread that the ship was taking water rapidly. Although all available hands (and even finally some women passengers) manned the pumps, one of which was defective, the water level in the hold rose rapidly. When it was realised that captain, mate and second officer had taken refuge in drink and were all, in one recollection, "three sheets in the wind", concern became acute. To add to the confusion, the steward, Kelly, having started by serving gin for those at the pumps, was soon dispensing liberally to all and sundry, and himself not least. For some time, without command or direction, the hapless vessel drifted.

Various initiatives developed among passengers and crew. As the mood veered toward panic, men began to launch the boats. This caused a frightful altercation with the mate, who flourished a revolver until forcibly disarmed. Soon after a small steamer (the "Wanganui") was sighted about two miles off, but the captain refused to allow signals to be sent. By the time his

mind had been changed, the opportunity had passed. There was much more in the same vein. While Dr Tighe was attempting to take off passengers in one of the boats, Johnson brandished a revolver at him. Pleas from the veteran sailmaker, Fox, and from Booth as a sort of self-constituted spokesman for the passengers, to turn the vessel inshore were at first crudely rebuffed. Booth, as he later confessed, was carrying a butcher's knife up his sleeve. "I was prepared for bloodshed."

Passengers were fully exposed to these goings on. Consternation and distress were general; from time to time women began screaming hysterically, though a number of the men appeared too far gone in drink to care. Smooth seas and calm weather, not any human agency, were instrumental in saving the stricken company. Finally, it would seem, Johnson mastered himself sufficiently to bear northward and head for shore in Jack's Bay, the first sensible manoeuvre in the disaster. The "Surat" dropped anchor there early on New Year's morning, and 100 passengers were at once taken off. Johnson then gave a taste of his real capabilities. Slipping anchor, he took the ship aground very skilfully on a sandspit just to the north of the mouth of the Catlins River. There, the "Surat" would find its last resting place. Through a chain of subsequent enquiries and proceedings, it was also the end for the master's maritime career.

As darkness closed in after the long twilight of New Year's Day, a broad, solid, dark man with a flowing beard planted himself resolutely outside a small scrub hut on the sandhills behind Jack's Bay. A few other stranded passengers from the "Surat" had helped him knock up this shelter during the day. Around, stretching away into the dusky hills, was the thick mantle of Tautuku Bush—and along the Catlins River, only a mile or two away, sawmills and the scattered improvised dwellings of a tiny settlement. Inside the little hut lay the man's wife, who had been confined on Christmas Day and lost her child 24 hours later. After the events of the shipwreck she was completely prostrated; for days or even weeks, Dr Tighe had advised, it would be dangerous to move her. The four children of the shipwrecked couple were also in the hut—girls aged 10 and 8, and boys aged 6 and 5. A few blankets and a ration of provisions had come ashore with them, but all their personal baggage had stayed with the stricken ship.

During the passage, the dark bearded man had heard tales of the cunning and savagery of the Maori—and was not to know that his loved ones were as safe in this remote fastness of forest as in their native Yorkshire. He tightened his grip on the tomahawk he carried and peered out into the gloom. On this first night in New Zealand, the cup of bitterness was full. Stranded

on an alien shore, Ephraim and Christiana Ellis could not foresee the long struggles and stubborn progress which would give their descendants an honoured place in the life of the new country. As he turned uneasily on his bed of bracken, the smallest of their children, Arthur, a little boy of 5, could hardly know that he would give his name to a significant national undertaking.

A TIME OF TROUBLES

Whatever discouragements faced Ephraim and Christiana Ellis on their arrival in New Zealand, they had little enough to look back to. For generations, it would seem, their families had been occupied humbly with wool and weaving in Yorkshire villages close to Leeds. This, at least, may be assumed, since efforts to trace family origins back beyond the nineteenth century have not been very fruitful. Some 60 years after the landfall in New Zealand, Arthur Ellis summed it up rather aptly—"it seems as if our forefathers were more concerned with keeping the breath in their bodies and in having clothes to shelter them than in making out their genealogical tree".

The conditions of life Ephraim and Christiana left are known with more certainty. Both were brought up as hand loom weavers, part of the tradition of piece work by artisans with looms in their homes. Their life was hard, a daily grind of 12 hours or more, with long periods of work by candlelight during the dark, dank, cheerless Yorkshire winters and with only Sunday as a respite. By the time Ephraim came to manhood, also, factory development was pressing remorselessly on his craft, and income was pitifully low. Fifteen shillings a week was as much as a man might earn, with nearly half swallowed by rent. To make ends meet in a family, married women kept working. After each confinement, a young girl would be brought in as housekeeper-nurse so that the wife could go back to the loom. This straitened hand to mouth existence had been the lot of Ephraim and Christiana—to make the shift to New Zealand possible, it had been necessary to borrow money from a storekeeper named John Horne in their home town of Rodley.

In the circumstances, that gesture was revealing. Only a man of real standing would be likely to command such backing. There is other evidence, indeed, that the Ellises were sober, frugal and hardworking, well respected in their modest local community. The foundation of this reputation, and the mainspring of their lives, was firm religious conviction. Embracing primitive Methodism, Ellises accepted a view of life as grim as their own existence, and lived out the sombre restraints of their creed. They learned, in so doing, to stand unflinching, the harder, more persistent and perhaps more humorless for being of truly Yorkshire stock. Religious affiliation was the focus of their lives, forming beliefs, prescribing conduct and providing the only hope of schooling they had. At Silver Royd Hill Church they worshipped, learned and taught, and its annals are studded with their names.

At the age of 38, Ephraim Ellis was solidly settled in his beliefs and occupation, father to four young children and a "big man" in his chapel. His wife shared his religious convictions and way of life. In their own country, however, their livelihood was precarious and they were without prospects. They decided to make a break. Apparently the choice nearly fell on Massachusetts, but the assisted passage scheme to New Zealand and an offer to Ephraim to manage, on his arrival, a small 10-loom woollen factory near the Kaikorai Stream may have turned the balance. His son Arthur was grateful, and most descendants have probably thought likewise—"I have many times been thankful that he made that decision, for I am confident that the conditions of life in New Zealand are much to be preferred to those in England for the working class—England is hide-bound in tradition, and it is very difficult for a person there to rise out of the class into which he was born."

Even after the shipwreck, the first steps were hardly reassuring. After three weeks staying at Guthrie and Larnach's sawmill on the Catlins River, where Ephraim found work firing the boilers, Christiana was sufficiently recovered for the family to go on to Dunedin by the small ship "Wallibi". The first night in Dunedin was spent at the Immigration Barracks at Caversham. The next day, in a spring cart, the family went on to be billeted at the house of Mr James Lambert in Kaikorai Valley. More than they knew, the occasion was memorable. In that locality a substantial family business would be centred, and five generations of the family, to date, would make their home.

For the time being, however, the outlook was desperate. The job Ephraim had accepted before leaving England had gone to someone else during his enforced delay at the Catlins. He consulted the notable Mr (later Sir Robert) Stout with the idea of taking legal action, but was advised that though his case was a good one, he would need means to back it. In fact, Ephraim arrived in Dunedin with 7s in cash, the debt to his Rodley sponsor, and the undertaking to repay the Government for the passage. The family had only the clothes they had worn from the ship. When, some months later, their luggage reached them from the wreck of the "Surat", all their clothes were ruined and only some jugs and tumblers were saved. As she opened the packages, Christiana wept long and bitterly. In consequence of a mayoral appeal, the Lamberts were providing temporary shelter, and further limited assistance was available. It was a bleak prospect for a new life.

Faith, resilience and stubborn Yorkshire tenacity, on the other hand, were assets of no mean order. Ephraim took up felling bush in Fraser's Gully, worked for a time in Lambert's fellmongery, and was then employed for more than two years

in the mill he had come to manage. Christiana became a weaver in the woollen mill and even worked intermittently after two more children were born. After two shifts, the family settled till 1881 in a small, two-roomed cottage at a rent of 7s a week. It had no washhouse, no bathroom, no scullery or pantry and only a camp oven. Water from the roof was caught in casks, and boiled on a small fire grate. The only bath was a zinc tub placed in front of the fire on Friday nights. The house leaked badly when it rained, and rocked on its piles in the wind. Despite all, Arthur was to remember life in this home as warm and happy. As immediate adversities were surmounted, courage revived.

Resettlement in the Antipodes appears to have brought out a venturesome streak in Ephraim's nature. Before long, he was making his way toward that Holy Grail of the nineteenth century worker—to be his own boss. The key, as in many cases, was not simply initiative but family solidarity. By 1877, Ephraim and his brother-in-law William Nicholson, who had also come to New Zealand with his family on the "Surat", had firm plans to exploit their experience in the textile industry by importing a machine to manufacture flock from textile wastes.

Very limited means restricted their ambitions to some such enterprise. A flock machine could be purchased fairly cheaply, and could be worked without much labour. Supplies from factories would not be costly, fairly rapid turnover could be expected, and production could expand or contract very flexibly to changing demand. Working capital requirements, in short, would not be too great. Accommodation needs would be modest and power could be obtained, if necessary, from that basic standby of small English textile concerns, the waterwheel. What was open to one struggling entrepreneur, however, was within reach of others. A proliferation of "backyard" factories, consequent shortages of wastes, and gluts in production, were possibilities which threatened the survival and haunted the growth of Ephraim Ellis's business for a long period after its foundation.

Though his formal education was limited, Ephraim was sufficiently a man of the world to calculate his prospects in the prevailing business climate. By 1877, it is true, the heady excitements of gold discovery in Otago were behind, and the first cracks were appearing in the precarious prosperity of the Vogel boom. Business, nevertheless, was still generally sound, there was hardly any unemployment, and new settlers provided an expanding market for basic goods in common use. In Dunedin, buoyant conditions were as good as taken for granted. By all appearances, it was a time when a man might chance his fortune.

Streams in the Kaikorai Valley provided a good supply of water. Ross and Glendining's mill and the one Ephraim had come to New Zealand to manage were already established there. A few other small ventures were scattered along the Valley. Modest workmen's cottages already clustered around the flat and—with partly conscious deference to the tradition of English mill towns—a handful of large homes of established settlers looked down from the ridge of Roslyn. On the western side, the Brockville-Halfway Bush area had been part of the vast Mt Royal estates, but subdivision in 1874 had released this, mainly for farming lots. The Sonntag family, shrewd nurserymen from Bavaria, were beginning to hew market gardens from niggerhead, flax and swamp, mostly with Chinese labour from the goldfields. The Taieri Road through the Valley, after all, was an artery from Dunedin to the Strath Taieri and the diggings beyond. If much of the Valley was still a wilderness, progress was in the air. A project to construct a railway from Burnside to Balmacewen was being canvassed. In this not unpromising setting, Ephraim Ellis screwed up the courage to venture.

In 1877, the project was realised. For less than £100, Ellis and Nicholson imported a flock machine and set it up in a barn. They took over a waterwheel previously used for a flaxmill, but there was not enough water for continuous working even though the stream was dammed. A portable engine was purchased locally, amost entirely on credit, for £240. Almost at once, disaster struck. One afternoon a fire broke out nearby, swept into several tons of hay in the loft above the barn, and totally consumed the infant enterprise. Since insurance had not been extended to cover the installation of the engine, the financial loss was severe. Where lesser men might have cried off, Ephraim Ellis found replacement machinery in Christchurch—and somehow secured it to start again.

Debts, drudgery and dust. This, in an improvised shed, was the unromantic story of the next few years. Rags, tailors' clippings, old clothing and textile wastes were collected and put through the flock machine. The dust was then shaken out over a screen by hand until, some time later, a Willey was imported which shook out the dust mechanically. Flock was sold to retailers, who made up mattresses themselves. After 1879, times were hard in New Zealand, and the Ellis enterprise felt the pinch. As soon as they could leave school, the daughters went out to work, and the young Arthur, to his lasting regret, was taken from school in 1882 just before his sixth standard examinations to start cutting up rags for the machine. Meantime, all was not well with the partnership. In 1882, Ephraim found out that Nicholson was planning to pull out and start in opposition with another person. A dispute followed, Ephraim bought out the business, and the debts piled up again.

During this time of dour attrition Ephraim, astonishingly, was also dabbling in other schemes. When fire destroyed the first mill, the only possibility seemed to be to start again on the same property as his own rented cottage, even though Daniel Brown, the landlord, drove a very hard bargain by increasing the rent from 6s to 15s a week. The result was that mill and home abutted one another for nearly five years—precisely on the ground occupied by the Head Office of Arthur Ellis and Co. a century later. This arrangement, clearly, was not too convenient. Shortly after his arrival, however, Ephraim had joined with four other men to buy a block of about 16 acres on the Kirkland Hill, just west of the Valley. It was parcelled up, lots were drawn, and Ephraim won first pick. In 1882, borrowing £400, he put up a substantial house. This, for the rest of his lifetime, was the family home. Unfortunately another of the group, who had missed the choicest section, spitefully built an ugly dwelling right in front. The tide, it seemed, had barely turned.

In the depressed conditions of the 1880s, nevertheless, the business survived somehow and Ephraim managed to meet the heavy charges on this ambitious home at Kirkland Hill. The saga of that venture, in fact, had an odd ending. Years later, a local policeman took transport to the house of the malicious neighbour one morning and removed husband, wife and daughter to be certified as mental patients. When the offending house came on the market, Ephraim's sons Arthur and Ben bought and demolished it. Ben then put up a less obstructive dwelling, which he lived in for many years.

Meantime, the struggle was dour indeed. In 1882, after Nicholson had been bought out, he did start up in opposition. In dull trading conditions the competition, which lasted for some years, was serious. But for young Arthur, fresh from school, survival might not have been possible, and Arthur's story is a grim commentary on the age. He is best left to tell it in the unvarnished but moving words of the memoir he wrote 50 years later—"for some years after I started work I received nothing in the way of wages, my father evidently thinking if he kept me in food and clothing that he had a right to my labour. Up to the time I was 17 my father paid a man £2 a week, but when I reached 17 he thought he could do without the man and I would do his work. That was the time he raised my wages to 1s a week, thus in my opinion making a net saving of £1.19.0. That was as much as I got until I was 20, when he began to give me 5s a week in addition to my food and clothes."

Between that age and our own, there is a vast gulf in circumstances and attitudes. Very easily, from the vantage point of the affluent and cosseted present, we recognise Victorian

tragedies of sweated labour and stunted growth. Too easily do we forget the iron grip of laissez faire, against which the iron discipline of family obligation and cohesion was the main resource of the poor, offering a chance of security and advancement. In the evening of his life, Arthur Ellis still looked back with a tinge of regret to might-have-beens, but his mood above all was of grateful resignation—"it was frequently my lot to come in contact with other young men who were allowed fairly liberal pocket-money, and I used to think that they were in a very much better position than I was. On looking back, I do not know of any one of them who prospered better than I did. It is probably the case of more young men and women having been spoiled by having too much money in their early lives than by having too little. On the reverse side of this, it is a fact that being too much deprived of money makes the possession of money look much more desirable than it really is. To get the idea into your head that the mere possession of money is the sole key to happiness is to be hugging a delusion and a snare."

Arthur's apprenticeship to life and business, however, was to extend beyond the flock mill. By 1889, when he was 20, conditions suddenly became quite buoyant in the flax trade. Mills started all over New Zealand. Partly because the flock business was still depressed, Arthur joined forces with a brother-in-law, William Watts, who was a carpenter, to start flax milling at Otautau. Since Ephraim found Arthur's share of the capital, it seems evident that there was no family breach. The flax boom, however, collapsed almost at once; the two "struggled on", in Arthur's words, for two and a-half years before giving up in 1891. When he returned to Dunedin the flock mill was still not doing well and Arthur seems to have considered other possibilities. "I had not been brought up to any other trade," his memoir recalls, "and so I went back there in the hope that I should at any rate be able to make a living." The experience had proved something of a crisis of growth. He returned, if sadder, more mature and knowledgable, and ultimately more settled.

From 1891, matters went better at the mill, which was still on the rented site including the two-roomed cottage where Ephraim had first lived. Arthur, now in the full vigour of manhood, gave a powerful impetus to the business. Since at first he had no money in wages, Ephraim had made considerable progress in paying off his debts. By 1894, family affairs had so improved that Arthur could contemplate the greatest venture of his life.

More than 10 years before, another Yorkshire family, from Lindley near Huddersfield, had settled in Dunedin and soon found affinities of background and sympathy with the Ellises. Job Mellor, a loom tuner, was aptly named. Limited in his

Above: Harbourmasters cottage, Catlins River—refuge of the Ellis family after the wreck of the "Surat", January 1874.

Below: Final curtain—sale notice for the "Surat" and cargo, Otago Daily Times.

SALES BY AUCTION.

THIS DAY,
MONDAY, 5th JANUARY,
At 2 o'clock.

SHIP SURAT,

As she now lies stranded at Catlin's River,

Together with

THE WHOLE OF HER CARGO.

For the benefit of whom it may concern.

M'LANDRESS, HEPBURN, and CO. are instructed to sell by auction, at their Rooms, Manse street, on Monday, 5th January, at 2 o'clock,

THE SHIP SURAT,

As she now lies stranded near the mouth of Catlin's River, with the whole of her spars, sails, standing and running gear, boats, anchors, cables, &c.

Together with

THE WHOLE OF THE CARGO.

Terms cash.

Ephraim Ellis and sons (about 1905). From left: Charles, Ben, Harry, Arthur.

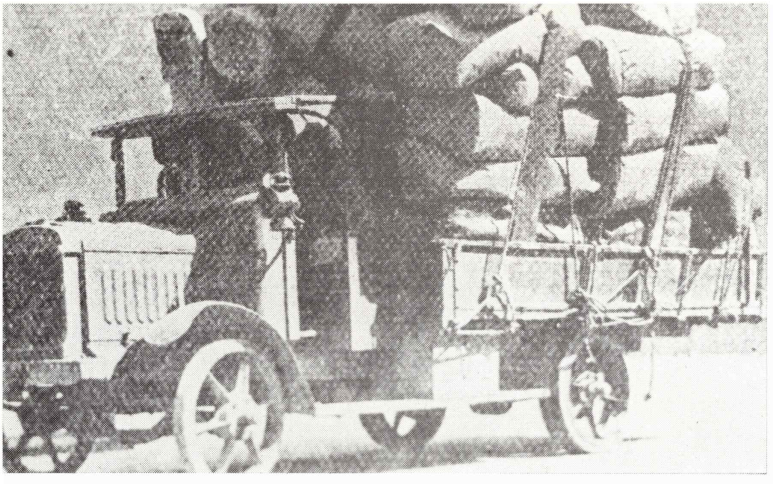
Above: Christiana Ellis.

Right: Arthur and Agnes Ellis—
wedding photo, 1894.

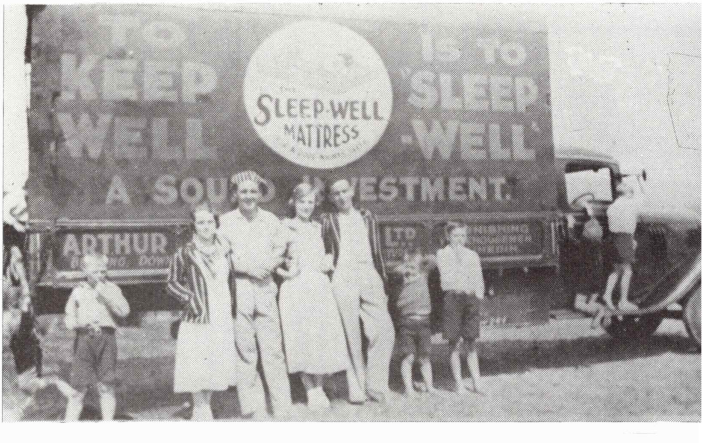
THE YEARS OF STRUGGLE: FLOCK MILL AND WORKERS, 1906.

Children, from left: Norman, Eric, Roland.

Standing, far left, Arthur; far right, Ephraim.

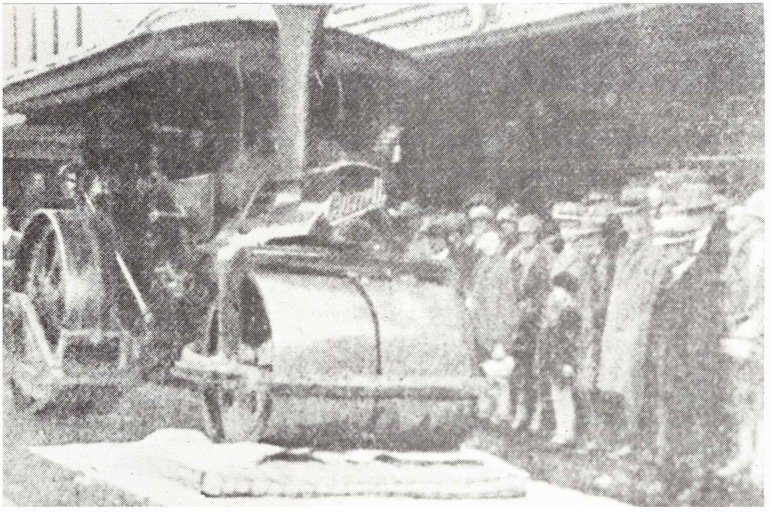


Above: Monarch of the roads, 1920s.



Middle: Company truck—a picnic occasion.

Below: Ordeal by steam-roller, George Street, Dunedin.



education, he had the Victorian respect for learning, and was an intelligent and voracious reader. In his work at the Roslyn Mills, as in his personal life, he had tireless patience and the dogged thoroughness of the best artisans of his time. He usually made his own clothes and he also built his home. Careful, modest and frugal, the Mellors epitomised Yorkshiremen of their type, but were not to escape tragedy. In 1891, Job Mellor was swept into the gold dredging boom and a large proportion of his life savings vanished. This reverse, it is suggested, shortened his life.

Among the six Mellor children, Joseph was preeminent. A studious boy, he started as a boot clicker with Sargoods, studied persistently at technical schools in his free time, attracted notice and was helped on to university. There his immense gifts were at once apparent, and he won an overseas scholarship in 1899. As Dr J. W. Mellor, CBE, DSc, FRS, the boy from the Valley became a chemist of outstanding world reputation, in his different field of ceramics an expatriate to stand with Rutherford.

The Mellor and Ellis families were very close, and the children grew up together. Just before the flaxmilling experiment, Arthur Ellis had become aware of his feelings for one of the Mellor girls, Agnes, and aimed to marry her from the time of his return. Stern necessity, however, came first. Only in 1894, when Arthur was 26, did the step seem justified. After difficult negotiations to alter the lease of the factory property, Arthur converted the two-roomed cottage to four rooms and was married to Agnes Mellor on Christmas Eve 1894. She made him a wonderful wife and created a home which was happy and serene.

Making his life at the mill, Arthur Ellis already claims attention. More than nominally nevertheless, Ephraim, who was now approaching 60, still exercised influence. The evidence that survives suggests the two of them were a good combination. Certainly the family had turned the corner. When the factory property became available for £550 in 1896, its purchase seems to have been arranged without difficulty. Not long after, a real windfall occurred when part of the property not occupied by the mill and cottage was sold off to the Roslyn Tramway Company (whose engine sheds subsequently stood on it) for £400. Significantly, the money realised was at once put to work in the purchase of 21 acres running back from Kaikorai Valley Road into Fraser's Gully. Except for the acreage later sold to the City Corporation for Ellis Park, all that area is held by the firm today, and much of the present factory stands on it. By this time, then, though their lives were still hard, Ephraim and Arthur were dealing confidently in fairly large sums of money.

What effect the long uphill climb had had on Ephraim's outlook and personality is possibly another question. Many times during the troubled 20 years since their arrival in New Zealand, he and Christiana must have questioned the decision they had made. There is not much to go by. Photographs taken after all six children had grown up show Ephraim as robust, assured and apparently serene. Christiana's finely chiselled, almost beautiful features are composed, nearly stern, but seemingly unmarked by bitterness. At the very end, nevertheless, Ephraim was to treat Arthur shabbily, as if, somewhere in the desperate struggle, the iron had entered into his soul. One precious letter survives, written to his sister Mercy in Yorkshire just before Arthur was married. It is a fitting postscript to the long time of troubles, revealing Ephraim's mind, chronicling the progress of his children, and setting the seal on the first steps in New Zealand of family and firm.

A long break in communications with his Yorkshire relations had apparently taken place, and earlier differences are hinted at. Since Mercy has "broken the ice", however, there are no recriminations. In a hand that is clear and still strong, Ephraim's plain and fairly correct prose sums up the record. If his retrospect is seldom cheerful, it does recall remarkably how the bleak faith he brought from Rodley had remained the unshaken foundation of his life. "Dear Sister, in the first place," Ephraim writes, "I hope and trust you have got that peace that passeth all understanding and if so why, it will be all the better when you get to the Land where Christ is the light thereof, for this world at the best is all toil and trouble but the next (Heaven) is all glory and at the longest it will not be long before we are all gathered to the throne where there is neither weeping nor wailing."

From the encircling gloom of this prologue, Ephraim turns to his own situation. "I can say for myself that there is very little to tempt me to stay from that glorious land. I have tried to make this world happy but I have failed so I am ready to give it up." Whether the religion sublimated the Victorian realities, and thus made them bearable, or whether the industrial age created its religions to palliate its miseries, Ephraim sees "the short time we are spared in this world" as a night of doubt and sorrow. "None of us," he goes on, "can help ourselves, when God put his hand on us we are feeble at our best estate." It is a simple, total piety, strange and alien to our questioning and sophisticated age. To Ephraim and many in his generation it was a wonderful resource.

Details of the family follow, with an occasional shaft of worldly wisdom and here and there a modest hint of pride. Annie is married to "a good husband, a carpenter by trade,"

with three boys. "The youngest boy is three weeks old today they want to call him after me but I do not like it." Florrie is married to an engineer on a gold dredge, and Charlie is an army sergeant-major in Melbourne. "They say he has got a good wife, and that is saying a great deal in the Colonies." Arthur, "a fine built man strong as a horse" is about to be married to a girl whose parents are "very good people". Ben, aged 18 and a salesman, does not entirely meet favour—"a lot of the Bolton man about him which I do not like. He is such a man as young girls admire. I think he will improve as age creeps on." Harry, the youngest, has just started working at 15 on very low wages "but I intend finding him something more suitable if trade improves. He is a real Waterhouse in every respect, his mother's pet."

There are still old people who remember Ephraim, dark, black-bearded and formidable. So, in the autumn of his pilgrimage, is his mould of man revealed, fashioned to sternness on a cruel anvil. The steel to surmount his reverses is implicit, but the personality we glimpse is not without a kindlier side. Worldly wisdom and compasssion are there, with a precious serenity. Why, one wonders sadly, could he not have had more fun? Ephraim lived on till 1912, seven years after the death of Christiana, and fairly active to the last. Against all odds, it was no mean achievement to secure in New Zealand the foundations of his family and enterprise.

THE ERA OF ARTHUR ELLIS

Where two generations work in a family enterprise, strains are not easy to avoid. If age breeds caution and fixed attitudes, youth implies boldness and fresh ideas. Old men give up authority with reluctance; the young grasp for it with impatience. Fortunate the enterprise where tensions are curbed, contrasting approaches are synthesised, and advance and withdrawal are timed to human and functional realities. For most of the 29 years they worked together, Ephraim and Arthur Ellis seem to have maintained a fairly harmonious partnership, with Arthur steadily taking over. If results are the test, the combination was effective.

From the mid 1890's, soon after his marriage, Arthur was the dominant figure. The time was propitious for his emergence, for the long Depression was lifting, the Liberal Government was providing a climate of optimism, and exciting, revolutionary prospects for the economy had been opened by refrigeration. Farming, it is true, appeared to hold the key to the future, and not industry. The buzz of Imperial Federation, indeed, had economic implications which could work against manufacturing. For all that, the exodus to Australia had been reversed; new and old settlers alike had more money in their pockets. Local production had a reasonable prospect.

Brought up in the Valley, Arthur stood secure throughout his life on his home ground. Where Ephraim is shadowy and enigmatic, something of a primitive, Arthur Ellis looms from the beginning as a contemporary man. More than he knew, possibly, the stern faith and discipline of his father shaped his conduct and paved his way to greater success. But the son was a rounder, more expansive and certainly more genial figure, broader in interests, relaxed and more tolerant in personality as the iron pressure of necessity lifted. For most of his life, Ephraim Ellis lived on the edge of penury and disaster. From the time he was about 30, Arthur was not to know or envisage real want.

Successful though he became, Arthur never outgrew the setting of his life's work. As he sensed himself, early hardships welded him to the common folk of his community. He grew up as one of them, attending the Kaikorai School, at first called Linden. It was a homely, perhaps crude, environment, but it did him no harm. In his boyhood, only a few buildings scattered down into the sparsely settled Valley, there were no street lights or footpaths, and roads were metalled with coarse shingle or not at all. He walked home from school down the rough Taieri roadway, on the lookout for herds of wild cattle from the saleyards on Roslyn Hill. Southward, a muddy, potholed road led

past a few tiny enterprises and Ross and Glendining's Roslyn Mills toward Burnside, and the land stretching north to Balmacewen was mainly open ground. West to the hills and Halfway Bush, there was not much habitation. It was a rather desolate neighbourhood, and to his disappointment it always made grudging progress.

The Kaikorai was too far from the city and not easy of access. When the Ellis family first arrived, the only means of transport to Dunedin was a cab drawn by two horses, and the charge was 6d each. The Roslyn tram started as early as 1880, but did not come over the hill. Amenities in the Valley were scarcely attractive. Sewerage was not installed till 1908, and a water supply was reticulated only a little earlier. For many years each house discharged waste water into the street gutter, from where, with luck, it flowed to the Kaikorai Stream. During the 1880s gas lamps were installed in the new borough of Roslyn (which included the Kaikorai), were lit at dusk and extinguished at a later hour by hand. Electricity came to the Valley only in 1908. From his youth Arthur Ellis hoped and worked for better things. "There was always a section of the Roslyn electors," he would recall sadly, "particularly those who dwelt in the Kaikorai basin, who were satisfied to go on in the old ways and did not favour any innovation that was likely to increase their rates."

The human surroundings were not without interest. Because of its comparative remoteness, and because the Kaikorai was not well favoured for attractive residential sites, not many people of substance made their homes there. A few did, especially on the Brockville side. Most notably, one homestead surrounded by pine trees was the property of the father of Sir Clutha Mackenzie, sometime Prime Minister of New Zealand and High Commissioner in London. This however, was rather outside the Kaikorai, and rather the exception. For the most part, dwellings in the Valley were the humble wooden cottages of working-class migrants, a good proportion of whom found local employment at the mills.

Like the Ellis family, a good number looked back to the industrial midlands, and were drawn to the Valley by expertise in textiles. Where the Scots imprint on Dunedin was strong, the Kaikorai was a little apart, something of a non-conformist enclave. In Arthur Ellis's youth, churches sprang up luxuriantly, epitomising this special character. The Presbyterians, for all that, came first. When the Ellis family arrived in 1874, the Kaikorai Presbyterian Church was the only one in the area. Although they were primitive Methodists, the Ellises went there. Soon after, Church of England services began (before the building of St John's) in the Roslyn Institute. Arthur and his brother

Charles were invited to become choir boys, and also attended the Anglican Sunday School at the Linden School. Apart from this interlude, the family worshipped as Presbyterians for many years, though Arthur went back to Methodism after his marriage into a Methodist family.

In an age when religion was central to the culture, other groups soon assembled. Plymouth Brethren began quite early, just opposite the Argyll Hotel—and services were led by Donald Matheson, the licensee. "Probably," Arthur Ellis reflected, "he was the only man available, and also at that time there was not the prejudice against hotel-keepers that afterwards arose." Ephraim thought the preaching grand, and sometimes took young Arthur to hear it, but the boy found it "an intolerable bore". Wesleyans built a small church just below the Kaikorai School in 1877, and Baptists set up in Kaikorai Valley Road. The Salvation Army started in Roslyn in 1884. Church of Christ and other denominations also made an appearance. The Roman Catholic following was not strong in the area, and St Mary's Kaikorai was built as late as World War I. For a small locality, in short, religious provision was generous and varied. This fact indicates not only the nature of the settlers but also the imperatives of the time.

A community anchored so solidly on God was also mindful of Mammon. In part because the road to the Taieri and the gold diggings ran through the Valley, hotels flourished. Between Roslyn and Halfway Bush there were four of them in Arthur's youth, two in the Valley itself. The Shepherd's Arms, on a site adjoining the present Roslyn fire station, was conveniently handy to the saleyards, and the Argyll was close to the junction of Kaikorai Valley and Taieri Roads. Excessive drinking was only too common; on Ephraim's children, wayward characters like their neighbour, the bootmaker Sandy Coutts, made an indelible impression. Sandy, they observed, was industrious and should have been prosperous, but they saw well enough where his earnings finished. With his dog, his billy and frequently his cronies, Sandy paraded daily to his Mecca at the Argyll, appropriately whistling "Pop Goes the Weasel". At this time, of course, the Temperance movement was gathering strength, and non-conformist churches keenly supported it. After the introduction of local option in the 1890s, predictably, prohibition carried the day and the pubs in the Valley were closed. Some misery, perhaps, and some local vitality and colour, went with them.

Against this unpretentious background, Arthur Ellis would build upon his father's beginnings. It is easy to sum up his achievement; he found a flock mill and made it a business.

The evolution started from a simple logic; the flock mill by itself was an insufficient outlet for his energies and ambition, and modest, insecure returns (in the mid-1890s turnover was about £50 a month) were not enough. From bitter experience, moreover, Arthur was aware that flock production was vulnerable to competition. William Nicholson, the former partner, had been a threat in the early 1880s, and one Edgar Clarke had subsequently carried that business on. A little later, a man named James Durston had joined a flock mill to other enterprises. "At that time," Arthur recalled, "there were three flock mills in Dunedin, all chasing around to get the trade which was only about sufficient for one mill." Durston, in the end, was frozen out, and the Ellises purchased his machine, but the message was clear. Diversification was necessary to offset the vulnerability of the flock trade.

The necessary breakthrough began more or less by chance. Some Indian kapok was advertised to be sold by auction, and Arthur went to the sale and bought it. He recognised at once there were possibilities in importing kapok and teasing it, but moves to buy through Sydney were unsatisfactory because the Indian kapok supplied was of inferior quality. The sequel is best recalled in his own words—"Therefore I decided to import Surabaya kapok which I was told was much more satisfactory. I first imported about 10 bales priced at 6d per lb. We teased this and sold it at 9d per lb and this profit was a very satisfactory margin; much more profitable than flock. From that time onwards we sold more and more kapok and our business gradually increased. We could see that it was more desirable to go to the fountain head for our supplies, rather than buy through Australia, so we got into communication with some Java people and began importing it direct." From about £50 a month, total turnover rose to £100, £200, and from that point a steady increase took place.

Here, then, was the decisive moment. Kapok, not flock, was the real prospect, and Arthur saw it at once. Quickly and shrewdly, by trial and error, he optimised his supply. Almost at once, kapok profits gave the firm unprecedented buoyancy and confidence, and provided a base for subsequent innovation. Later, indeed, as experience grew, the firm speculated to a degree in the kapok trade and made some substantial windfall gains. That, however, was for the future. With the course set fair for expansion, the immediate problem was where to take the next bite.

Flock, kapok, mattresses, bedding, upholstery. Somehow, straight-line diversification along that chain ought to be the answer, with previous production and knowhow as a springboard. Arthur Ellis was not long in putting the proposition to

the test. This time, however, the walls did not come tumbling down; the young master bought a fight.

Two developments, in fact, were tried nearly simultaneously. In 1901, it was resolved to begin the manufacture of wire mattresses and coppered steel springs for upholstery. A building was erected near the flock mill and production began. Athough this department carried on for some time, it was not profitable. Margins were small, transport of finished wire mattresses to Dunedin was not an easy matter, and the mattresses were easily damaged in transit. In the end, Arthur was relieved to take the opportunity to dispose of the plant to another manufacturer. If this venture was a blind alley, at least the firm had not plunged too heavily and had known when to cut its losses.

The next move was much more dramatic. Until this time, manufacturers did not supply finished bedding to the retail trade. Flock and kapok were provided by firms like that of the Ellises, and retailers filled the casings. Upholsterers also kept flock and kapok in stock, since filling and casings were also retailed to customers. As a first step, Arthur Ellis hit upon the idea of packing teased kapok into parcels of one, two and five lbs. Because the task of handling and bundling up the fibre was inconvenient and unpleasant, this idea was greatly welcomed by the trade.

The next extension seemed obvious. Why not save retailers their trouble by making up bedding on a factory basis? If finished mattresses were supplied to the trade, much dusty, distasteful work would be avoided. This, surely, would be an even greater advantage. At first, the scheme backfired badly. A good many manufacturing retailers saw it as encroaching on their preserves, and this they resented. Quite an amount of business was withdrawn as a protest. A Mr Baxter who started a flock mill near Normanby even gained a good foothold by playing on the fears of traders, and advertised that he did not manufacture bedding. It seemed another ill-hatched venture, best forgotten.

This time, however, Arthur reacted differently, and the difference is significant. Weaknesses in the scheme to make wire mattresses, he had seen, were inherent, beyond his control. Wisely, he dropped it. Bedding manufacture, on the contrary, was inherently sound, at risk only through prejudice. Wisely, he backed his judgment and persisted. Over a period of some years, he patiently explained the merits of his innovation, overcame fears and wore down misunderstanding. In the end, even those who had been loudest in protest were converted to buying made-up bedding. With his other qualities, Arthur Ellis had now demonstrated perseverance and diplomacy, and they won him a rich reward. The new department grew rapidly.

Technical innovation was a logical response to the opportunity this victory had created. If the company made mattresses instead of merely selling fillings to retailers, some more efficient and economical means of manufacturing than stuffing cases by hand ought to be possible. In 1913, at a cost of about £400, new teasing and filling machines for both flock and kapok were introduced. Mechanisation increased output, lowered costs and prices, and put the company in a dominant position against smaller competitors. This was the beginning of the end for the manufacturing retailers. Even for them, however, there were distinct advantages in the new system, and the benefits to the consumer were substantial.

Various family developments, by this time, were to have a bearing on the future of the firm. Secure in their modest home, Arthur and Agnes Ellis were bringing up a family. Doris, the eldest, was born in 1895, Eric in 1897, Roland in 1900, Norman in 1901 and Maurice in 1902. Muriel, the last arrival, was born in 1906, by which time the family had shifted to a large and imposing house which overlooked the mill from Falcon Street. The children did well. To their parents' considerable pride, the two eldest were duxes of the Kaikorai School. As business expanded, Arthur nurtured a father's hope that sons might one day join him. Three of them, although he could not know it then, would follow in his footsteps.

Throughout these years of growth, Ephraim Ellis appears to have been well in the background. Most of the information, at least, comes from Arthur, and he gives himself the centre of the stage. If, on the other hand, the father's role had been really significant, it is very likely Arthur would have said so. Arthur's will and enterprise, there is not much doubt, drove the business forward—"about 1897 I was anxious to extend the business, for up to that time it only gave my father and myself a bare living." Was there an element of insensitivity in his dealings toward the older man? Did he too easily presume Ephraim's eclipse and acquiescence? Did the father resent the bold successes his own cramped life had missed? Unhappy differences in Ephraim's closing years raise these questions.

"I worked with my father for 29 years," Arthur would recall, "and during all that time our relations had been quite cordial with the exception of the last two or three years." There seems no reason to doubt that statement. During 1911, however, and without any apparent cause of dispute, the situation suddenly became very strained. Arthur soon felt it was impossible to continue, and thought of starting afresh in Auckland. The difficulty was that the two men were in partnership. From about the time Arthur was married, he had drawn one-third of

the profits and his father the rest. Later, the two had drawn equal sums weekly as working salary, but the distribution of annual profits remained the same. Ephraim now refused to buy out Arthur's share, and countered with his own proposition that his son buy him out in cash.

This, to Arthur, was a shattering blow. Between 1894 and 1911, in his own view, he had laboured mightily to develop the business, bearing in mind his father's promise that he should ultimately have it. What he had worked up, he apparently expected as a gift. One point was common ground; further business association between the two was now impossible. The rest is best left to Arthur's words—"I had no option but to accept, and in 1911 my father withdrew from the business leaving me the task of paying him his two-thirds share, which I considered I had largely created. I did not consider, and do not consider now, that I received a reasonable deal, but there was no alternative to accepting these conditions and making the best of it." There was more to come. When Ephraim died 10 months later, Arthur found he was left out of the will. Whatever the rights of the matter, it was a sad end to an honourable chapter.

Ephraim was gone, and the burdens were greater. It was a sort of consolation that another family link was now created. Ben, the dashing younger brother, had been to the Boer War, and had later attended the coronation of Edward VII. He returned to Dunedin something of a hero, and embarked on making straw hats. Despite machinery and experts from England, the enterprise was always shaky. The affable cavalier as ever, Ben gave up, bestowed himself on the flock mill, and stayed with the business till 1923.

Reorganisation now took place. The business, which until Ephraim's death had been carried on under the name of E. Ellis and Co., was turned into a limited liability company in 1913 with a capital of £7,500 and the name, understandably, was changed to Arthur Ellis and Co. Ltd. Arthur held 6,500 £1 shares and his brother Ben took up the other 1,000. Two men outside the family appeared at the first Annual General Meeting. The first was Mr Hercus, an accountant with Barr, Leary and Co., who was to be closely associated with the firm's business planning for some years. Thus began a wise tradition of financial consultancy which was not the least factor in continuing success.

The second newcomer was a homespun Scot with a practical gift for machinery. John McGregor, long a resident of the Kaikorai and a close confidant of Arthur, now joined as a shareholder in the business. His association would continue unbroken until 1945. Although John McGregor was always overshadowed by the family leadership, his aptitude with machines was much

relied on in early days and his shrewd and canny judgment must at times have been invaluable. In later years, he looked after a small farm on the Fraser's Gully property bought in the 1890s. Two sons, it may be noted, continued the link with the firm. One drove horse and cart deliveries to the city for some years and Gordon McGregor retired in 1973 after 40 years' service. A cricketer of provincial standing, Gordon made a special mark through his influence among young people in the enterprise and the Valley.

One aspect of John McGregor's job highlights special anxieties which had faced the firm from the beginning. Fire alarm bells were connected to his home as well as to the Roslyn Fire Station. The flock mill was an obvious fire hazard. For many years no insurance was possible, even with Lloyds, though the situation changed as a result of water reticulation in the district in 1908. Nearly everything the founders had, moreover, was tied up in the business; the associated worry left an indelible mark. Almost until the end of his life, whatever the hour of night, Arthur Ellis would get out of bed whenever the fire alarm sounded and look down anxiously to the mill from his vantage point in Falcon Street. It was a further problem that early services were rudimentary. The Roslyn Fire Brigade was a volunteer effort. Anyone seeing a fire ran out and beat one of several gongs placed at intervals around the district. The firemen would then muster from their homes, horses would be yoked up at the station stable and—in the fullness of time—the brigade would rattle to the rescue. For those with inflammable premises subject to flash fires, all this was scarcely reassuring.

Management difficulties became more onerous during the war period. When electricity came to the Valley, the Ellises had at once converted from steam power. In 1913, when a massive flood washed out market gardens, swept away the dams and banks of the Kaikorai Stream, flooded South Dunedin and the Burnside works and even coursed through the Green Island tunnel, the wisdom of the change was amply confirmed. One disadvantage, however, was that the electricity supply was barely sufficient. As a deterrent, higher rates were charged at peak times. For a long time, machinery at the mill operated between 7 a.m. and 3 p.m. to phase in with this situation.

Sharp swings in raw material prices and inflationary pressures were other factors which tested managerial judgment in war conditions. Although trading in kapok brought occasional windfalls (more especially in the post-war period), Arthur Ellis was too circumspect to plunge heavily. In general, purchases were careful and financially sound. Dividends were pretty steady

at good levels until 1918, but the aftermath was not so rosy. As late as September 1919, directors voted themselves a handsome bonus "in consideration of the successful year and in recognition of their business zeal". By the time accounts were presented, however, only the zeal remained. "It was decided," said the minutes cryptically, "not to act upon the previous motion." Inflation had caught up; lean years followed until readjustment, a return to general prosperity and tidy speculative gains yielded a bumper harvest in 1923.

Basically, however, very solid consolidation had taken place. By the early 1920s, staff had grown to about a dozen, a second iron shed had been added to plant, trading conditions were again fairly buoyant, and the company had accumulated substantial reserves as a springboard for further innovation and expansion. Not least, the next Ellis generation was poised to give fresh impetus to the business. Norman began his career learning wool-classing at the Roslyn Woollen Mills, but the work did not attract him. He came into the firm in 1918 and was admitted to meetings of the Board in 1922. Roland gained business expertise in the Otago Daily Times and the New Zealand Shipping Company. His service with Arthur Ellis and Co. began in 1919, and he was associated with the Board from 1924.

The emergence of Roland and Norman to manhood and a part in the direction of the company marked, quite suddenly, an end and a beginning. Now in his middle 50s, Arthur consciously set about preparing for his withdrawal. From the time the brothers joined the Board, their father steadily transferred large parcels of shares to them. Long before Arthur's retirement from active participation in 1930, moreover, the thrust of the business, and much of the day-to-day management, had passed to his sons. "I had learned from the experience of my father," Arthur put it, "that it is rarely wise for a man to keep in business too long. It is a good thing to give younger men the opportunity to control and manage a business while they are in the full vigour of their youth, and not to have them waiting until their father dies before they get a chance to show their mettle."

One fortunate decision at this time has served to remind posterity of the era of Arthur Ellis and his contribution. Earlier on, part of the farm in Fraser's Gully had been leased to the Sonntag family for market gardening, and liberally fertilised with fish offal. When they gave it up, "the effects were distinctly visible," and the land was not really suitable for pastoral use. In 1926, negotiations were concluded to transfer 10 acres at a moderate figure to the Dunedin City Council, with the stipulation that the area be used for recreational purposes. With his

usual foresight, it may be added, Arthur Ellis purchased an adjoining block of five acres at the same time. A large sports ground was ultimately established on the Council area and appropriately named Ellis Park.

From difficult beginnings, it has been suggested, Arthur Ellis created a modern and flourishing business. To identify the personal qualities this work involved is a fascinating if daunting enterprise. Painstaking perseverance, as shown particularly in the early years, was one of them, and physical strength was a constituent of it. Foresight was another; Arthur Ellis looked at possibilities and made them reality. Inseparable from his origins and so clearly evident in his memoir, there was also an earthy common sense. With that went a sense of timing; nearly always, important moves were made at the right time. Tough, shrewd bargaining, as he himself believed, was also a condition of survival, and he proved himself robust and fearless at it. On that score, in the evening of his life, a man of property and of character, Arthur Ellis penned what may well serve as an epitaph to his business career—"I frequently find it in life, that when you are confronted with a crisis, the best way to tackle it is to go at it like a bull at a gate and, whether you feel afraid or not, above all things never let your fear be shown."

THE LITTLE WORLD OF ROLAND ELLIS

Kaikorai Valley, inescapably, reflected the conditions of the world between the wars. Despite the picturesque cable cars which clanked and groaned over the steep ridge above Dunedin, however, and the motor cars, steadily more numerous, which wound around and up and across, the Valley was never really assimilated to urban life. It was something apart, nestling amid farmlets and uplands, looking over the hill with mixed suspicion and excitement, for all the world as if it were a country town. And yet, it was not; subtly, propinquity changed its problems and tone; more obviously, textile factories employed 75 percent of the local labour force, imparting a character quite distinct from that of the rural scene.

In the time between the wars, life was rugged in the Valley, mainly a workers' suburb, with no attraction for the respectable middle-class. Since the boyhood of Arthur Ellis's generation, modern utilities and gradual growth had scarcely changed the mould the earliest settlers had set. Chimneys in the hollow, the clustered cottages, the masters on the hill and the green valleys beyond—all this the Yorkshire kinsfolk of Ellises and Mellors would well have recognised. It was a curious transplant, partial only, leavening Dunedin's Scottish imprint by a different if unpretentious idiom. The identity, for all that, was not quite separate, and the people mingled freely. The Valley was not a ghetto; the Ellis success was not a response to social penalisation.

It was cheerless in the Valley, in the cold, gloomy winters. As the short day darkened, workers from the Roslyn and Ellis mills—1,200 or more—would pour out on to the metalled, muddy road, splashing through inky black potholes where dust and slag had dropped off the coal lorries from Burnside. Some would scatter into the settled area of the Valley, huddled in worn worsted coats or mackintoshes. Others trudged over the hill to Mornington, and on even to South Dunedin. It was a long way, to be sure, but a job was a job, and they thought themselves lucky to have it.

There was hard work in the Valley, exacting and tedious at the machines or dusty and dirty amongst the fibres. By later standards, the pay was a pittance. In the 1920s girls of 13 or so starting with Arthur Ellis and Co. made 7s 6d or 10s a week. By the 1930s, skilled women sewers in the embroidery room got to £2.5.0. Winnie Bartlett, who supervised 80 or so girls making quilts, reached £5, but that was exceptional, even for a lady. Just before the slump, when Bill Boock came in at 16, a lad's pay was 15s. A man of experience might reach £3. Ainslie Lawn was a traveller in the 1930s, quite a senior job, and his salary was £4.

Not many young people came to the Ellises as a deliberate career choice. Mostly, father found the job, through a personal connection and a personal approach. It was a relief if he did, for jobs were not easy to find, even in the 20s. The company was an exacting master, but fair, much respected, and loyal to its staff. Even before the depression of the late 20s and early 30s, Arthur Ellis and Co. was a good start for a lad, offering a chance in the Valley, security, and a taste of the hard realities of life. Most of the dads, Scots, non-conformists or something else, had been broken in the hard way themselves, and did not want it too soft for their sons. The firm, like others, took its pound of flesh, and some of the supervisors were martinets. Until the 1930s the very idea of stopping for morning smoko seemed something of an outrage. When a tea break began, the cups came round at first on trolleys, and work did not stop. The mill, of course, met existing standards quite adequately and labour inspectors looked in from time to time. There were not even unions in the mill, however, until the middle 30s, and not many cared. Times were hard, the working relationship was paternalistic, and conditions were more or less taken for granted, as a fact of life, by the workers not least. Young people learned discipline, and the message stayed for life.

In the Valley, nearly all young people started work at an early age. Even in the 1930s only half a dozen or so a year went on from the Kaikorai School for secondary education—nearly all boys. The school itself was a fairly tough start. There were fights on the way, fights in the playground and gangs which leaned on outsiders and each other. The authorities did their best, and a stern best it was, but the school reflected a hard neighbourhood. Standard Six were the worst—in some years, they went through half a dozen teachers. Outside school, however, girls had home chores and a lot of boys had their hands full—milk runs, paper runs, cutting lawns—all such activities provided a little pocket money and a mite for the family kitty. Besides work, there were certainly other controls. Family, minister, policeman—these were the big three, and the greatest of these was policeman. Fatherly, robust, a tower of strength, George Williamson was constable in the Valley between the wars, and his eye for misdeeds was watchful. There are veterans today whose ears still ring at the remembrance of his hefty palm.

Even for the young, there was colour and amusement all the same, simple pleasure by the urban standards of today. Sonntag's orchards at Brockville were a fun affair, if dangerous, with apples, pears and plums. A chap and his cobbers could take up trolleys, with sugar bags aboard, and try a little daring. Whatever happened, save the trolley. There were even times when Sonntags allowed visitors, and the young might join in. On

Sundays, in the spring, people came from all over the city and picked violets at 6d a bunch. Gooseberry picking at 2s a kerosene tin was on in summer, but many lads were reluctant learners. Any time, however, there were rambles across the hills to Flagstaff, with fresh water lobsters to be caught and boiled in tins, fuchsia bark to be smoked and coughed at, and a few scraps on the way. For a stopover, nothing was better than old Uncle Tom's near Wakari. One could hear his stories, eat his gooseberries and feed his hens.

Organised diversion was also varied, though money was a big handicap. Rugby and cricket clubs in the Kaikorai did a marvellous job for boys, and took them in early. If they couldn't pay subscriptions, they mowed or cleaned up. The Kaikorai cold water open air baths was popular in summer, but the season was limited. A skating rink struggled along for a while, but operated on thin ice, and melted away in the depression. Over at Highgate, Freddie Moir taught boxing, and he took boys for nothing. Sport was encouraged by the parents, partly because it was so cheap. Fathers, also, were tied to the home in their leisure time. Many kept a cow and hens, and most slogged away in the vegetable garden at weekends. It was something to know where the young hopefuls were.

More exotic entertainment existed, especially for those who were older. In Nairn Street a dance hall flourished with the likely name of Moulin Rouge. You paid a shilling and perhaps you had to borrow. The city, however, was the real magnet—2d down and 3d up by the Rattray Street tram. If a crowd went together, standing on the luggage trays, and rocked hard at the Arthur Street grade, they might derail the machine for a bonus. Friday night was good for a prowl in the city, and the big event was supper at the Savoy—tea and sandwiches for 1s 6d. Saturday, all the same, was the loveliest night of the week. For half a crown there was Joe Brown's Town Hall Dance, maybe pea, pie and pud to follow and, if cash ran low, a walk home. The last tram, however, was often hopeful, for the conductor usually got off. The gripman lived in the Valley and took the stragglers home. No cars, not much canoodling. Each sex was a bit of a mystery to the other, and they tended to keep apart.

Older people had their own preoccupations, especially in the hungry 30s. Large families were still the order of the day. For the women, without modern appliances, keeping the home fires burning—copper for washing and stove for cooking—and bringing up the children, was busy work. As soon as they were able, girls were expected to help. Between home and job, the lives of many young women were cramped. The family man often had some open ground and livestock in the Valley, and he

kept his garden. He really needed it for the hungry mouths. During most of this era, for those in full-time jobs, 48 hours was the usual working week. There was not much time for entertainments, and not much money. There were also no pubs in the Valley, and six o'clock closing in the city was dispiriting. Especially at the end of the week, for all that, the cable car took the faithful over to Maclaggan Street for the "Friday haircut"—and brought them and their cargoes back. Marriage and family often meant giving up sport, though following local teams and trips to Carisbrook were compensations.

Work, home and church. Religion, for a substantial number, was still the main spare-time commitment, though that description would not have done. Religion swept in old and young alike. Sunday morning was bedlam, with cleaning, scrubbing and polishing before Sunday school, Bible class and church. If the day varied afterwards, older folk set the tone, kept on their Sunday best and occupied themselves with quiet visiting, reading and rest. Fun was frowned on; if they were lucky, the young kept out of the way. The church, however, was also a community focus and welfare centre, drawing on members for many causes in the week. It was almost unrespectable not to join in. For the women, indeed, devotion could be a liberation—nearly the only respite from kitchen and cot.

In this modest and struggling community, the next generation of Ellises grew up, educated locally and sharing its hardships, at least in their early youth. Like Arthur, they never disclaimed their origins, never lost their understanding, and kept the common touch. From boyhood, certainly, the ways were different, for all went on to secondary school. Eric and Maurice had further study abroad, and both took British engineering degrees. Arthur, in later life, was fairly well off and fairly expansive, and this too rubbed off on his sons. At Karitane was the big beach house, with boats and diversions to go with it. To get there, from about 1918, they had the wonder of the neighbourhood, a formidable Hupmobile car. Anything mechanical was a special joy to the boys, and they had a knack for it, repairing, tinkering, inventing and pulling to bits. If their background was narrow, their opportunities were extensive and their horizons became wide. Energetic, ambitious, loyal and close-knit, the next generation stayed with the business, and the little world of the Valley was their oyster.

The torch went on, at first, to Roland and Norman. The girls married and left Dunedin. Eric returned from overseas to Central Otago and stayed as a power board engineer/manager, never joining the firm. Maurice began his professional career elsewhere, and came back much later. If the Dunedin brothers

were both very active, the range and gusto of Roland's exploits soon stamped him as an exceptional man. Norman, it will be seen, had valuable qualities. With the addition of Maurice from 1936, the brothers were a close and strong team. In the growth of the firm, however, for the decade before that time, Roland's was the decisive presence. To speak of his lifestyle is to highlight the unusual personality on which the further development of Arthur Ellis and Co. so greatly depended. In the period of his heyday, the staff dubbed him correctly. Roland was "the Chief".

Concern in the local sphere, dynamism, total assurance in the organisation of others, and a fey individualism that was all his own—these among Roland's qualities exploded from early manhood. As a boy, with the others, he had toyed with pursuits such as scouts. These ventures apparently left him unmoved; typically, he abandoned them pretty quickly. Leadership of the Roslyn Presbyterian Bible class, oddly, gave him an early opportunity, and he grasped it in a characteristic way. New technologies interested him profoundly, and so did community needs. The result was interesting. While respectable persons knitted tea cosies for bazaars, Roland showed western films in the church hall. The show was impeccable, like a three-ring circus —ushers, doormen and all—and he had gauged his market to a T. It became the Mecca of the impecunious youth of the district every Saturday night and the Bible class missions fund topped New Zealand. Then the strictures of the sanctimonious rolled in. Before long a majority of the deacon's court was in full cry; the films went off and so did Roland—too vital, too successful, a prophet before his time in a stultified atmosphere. It was, for all that, quite a demonstration.

Fortunately, he was also irrepressible. As a life-long interest in the Mount Aspiring region kindled in the 1920s, there were fresh outlets for energies and planning. He took to mountaineering as to business, working at the craft, calculating the chances, never sparing himself or others, determined in realising difficult goals. In 1927, he took part in the third ascent of Mount Aspiring, after his group had been holed up in driving hail on the face of the mountain for three days, and he came back snow blind. The mountains were a constant love, and his dedication was recognised. In later life, Roland Ellis was to be President of the New Zealand Alpine Club and a Life Member.

The spin-off from this aspect of his widely varied life was in itself astonishing. Radio pioneering was part of it. At Mount Aspiring Station, the Aspinall family lacked communication with the outside world. In Dunedin, Roland Ellis wanted information on conditions in order to plan weekends. A one-tube radio link

from the Matukituki Valley to Ben Ellis's horse paddock in the Kaikorai Valley was the response. For both parties, especially the Aspinalls, it was a wonderful facility, and unorthodox uses gave the extroverted, frivolous side of Roland's nature a lot of fun. The link did good service till World War II—and paved the way for a much more ambitious experiment in later years. When, as will be outlined, his son Murray went to the Antarctic with Sir Edmund Hillary, Roland Ellis organised direct radio communication which far outshone official links.

Early experience also drove home the message that the track to Aspiring needed a solid refuge against wind and weather. On that score, Aspiring Hut is a fine memorial to a later initiative and, since Roland was a considerable donor, his generosity. At various times a mill truck would be loaded with materials on Friday. Some time in the afternoon, the chosen ones would clamber in—charmed aboard by the Pied Piper—and the long journey would begin. A weekend's hard work would follow, with plenty of supervision and discomfort, but it seemed to most that he did them a favour. There was even competition, at the mill, to get the nod. A few problems were solved typically. To begin with, the track to the hut site would not take the truck. Jack Gillespie went ahead, with gelignite strung to his waist, and blew up rocks as he went. Bruce Gillies and his GMC truck were cajoled into conveying loads far beyond legal limits. The traffic officer at Roxburgh regularly stopped and weighed them, an embarrassing limitation on loads. Roland's friends slapped up a trailer, and they sailed past merrily with four tons.

Photography was another popular technology of the 1920s, and it went well with mountaineering. For Roland Ellis it became another absorbing interest. His fierce concentration mastered techniques, and his imagination threw up daunting challenges. Once, with Vic Bowden, he humped a cine camera up Mount Aspiring. In 16mm, by the testimony of experts, he became extremely proficient, but the visual experience was not enough. After he read about magnetic stripe, he and his close friend Jo Anderson of broadcasting designed a machine which Maurice Ellis built. The big triumph followed. After a photographic trip through all the southern sounds to Milford, a year was spent in editing. Then Roland showed his film in the Dunedin YWCA to a packed audience. The Kerridge organisation, the record indicates, was loud in complaint.

If he shook off business worries in the mountains, opportunities were another matter. Many company developments—not all successful—stemmed from inventive thinking during Roland's recreations. At one stage he designed an original alpine

tent, imported expensive materials and made it. In the finish, it did not prove the last word. He was intensely interested in alpine clothing, and this ultimately became one of the firm's prestige lines. Above all, that 1927 ascent of Aspiring left a memory and a message. The point is best made by Roland Ellis himself:

"For four nights and three days the fury of the wind lashed the tent unmercifully. We could hear gusts of wind coming up the Bonar Glacier from the north-west, hit the mountain, and then bear down on the mite of a tent, the walls crackling like machine-gun fire. The storm didn't let up, and with the heavy driving rain the member next to the end wall of the tent, which was to the weather, had rather an unenviable time. It was no wonder then that, during the long hours of waiting for the storm to pass, thoughts naturally turned to the idea of making something more comfortable to use and easier to carry than the heavy woollen blankets which seemed to hold an immense amount of water which, when it found its way into the tent, was unable to escape because of the waterproof floor. On the fourth night the wind completely died down, giving way to snow, and the cold plus the wet blankets put the finishing touches to the thoughts that had been crystallising until the dream down sleeping bag had only to be made. However, it required many try-outs during subsequent expeditions before the final basis of the present-day bags was accepted as being satisfactory."

Not to anticipate too fully, therefore, Roland's mountaineering experience was the direct impulse for product development which was to win the company dramatic international prestige and export prospects.

Even these activities however, did not contain the restless spirit of the man. From the ebullience of "Osonzac Yodellings", a newsletter he produced, and lusty choruses on the ether, Roland Ellis would turn happily to pighunting, deerstalking or duckshooting, relaxed in the open, a natural leader and good company. For some years he organised a mammoth annual hare drive in the Strath Taieri. Buoyant and boyish, Roland always had a plan, and his imagination, at times, stretched his ideas till they snapped. In business, various restrictive mechanisms always operated, even on him; in his private life, his will and imagination had fuller rein. The consequences, if sometimes triumphant, could also involve hilarity and discomfiture for himself and friends.

As in the episode of the Sunday school films, personal interests and recreational self indulgence were often turned to public benefit. Defeated by the Dunedin kirk, Roland screened

films during holidays in the Tarras Hall—to the delight of all beholders. Drawn into backing sporting activities in the Valley, he found himself spokesman and leader of a Licensing Authority battle to obtain controlled drinking facilities. Through his marriage in 1922 to Jura Prain, a gracious and lively lady, and the birth of two sons, he found himself with the preoccupations of a father. Mrs Bill Clark came to him seeking support for a Plunket Society centre in the Valley. "Go ahead," said Roland simply. "When you are ready, there is a section for you." A plan evolved, in the shape of a Nissen hut. This was firmly rejected—the Valley must have better. Suggesting, directing, dipping deep into his own pocket, he made the present neat brick structure a reality. Not all his public dreams, however were realised. For years he worked on the idea of a tunnel through from the Valley to the brick works at Mosgiel, but the project never caught on. So, in life and business, the logic and energy of his thoughts led from one thing to another, in a constant process of expansion.

"The Chief", however, was also a man of contrasts, too complex to be readily labelled. In business, he could be hard, even to his staff, sparing them as little as he spared himself. On one occasion mattresses had been promised to firms in Christchurch, and advertising timed to suit. Loading in Dunedin, however, was well behind schedule. Roland backed up a truck, some typically brisk and blunt instructions followed, and a team toiled hour after hour until a consignment was ready. Late at night, Roland took the wheel and drove straight through, arriving in time for breakfast. The cargo came off, the truck turned round and Roland went back. Dedicated, disciplined, hard driving, he created momentum around him and made himself admired.

Between meanness and generosity, Roland's nature seemed curiously polarised. Born in a cottage in the mill yard, he had known scrimping and saving in his childhood. Later, family income was ploughed back for business expansion. Until Roland was about 50, his financial situation was certainly not relaxed. All this, possibly, marked some sensitive corner of his mind, closing up a section of his conduct. He sometimes employed staff on very harsh terms—though he usually mellowed once they proved their worth. He was known to refuse unwanted waste material to employees. He once insisted that Ainslie Lawn take an unused British stamp to London for fear it should be wasted. He piled up incoming envelopes, and personally distributed them in the firm's offices for secondhand use. Once, a huge bundle of them went off with a representative for use in Invercargill. Not appreciating the system, the man tossed them from

his car near the Henley bridge. They landed by a passing fisherman, a friend of Roland, who dutifully returned them to the source. The consequent fireworks may be imagined.

The same man, of course, slogged and spent his money on many good and a few indifferent causes, without thought of personal recognition or reward. His thoughtfulness to staff in illness or adversity was proverbial, and came from the heart. Many remember gestures of practical help. When someone from the mill was shifting house, a truck, a group of the men and a five gallon keg would always be laid on. For those with big families and bigger commitments, he hunted down extra weekend jobs all over town. During World War II it was his policy that kept servicemen from Arthur Ellis and Company on partial pay, found them advances when on leave in London, provided frequent food parcels and assisted families at home. Likewise, he organised parcels for alpine club men overseas, and produced a newsletter for them himself. In small things, look for the man. His gestures were legion, and they continued to the end. Roland Ellis spent thousands, and himself not least, in the service of others.

In fact and in prospect, then, it was no ordinary man who assumed the direction of Arthur Ellis and Company from the middle 1920s. For decades, hardly flagging, the commitment and the discipline, the exacting standards and the power of organisation, the vitality and foresight, the vision of what might be, transformed the firm just as they animated Roland's private interests. Whatever his enthusiasms, moreover, and some of them lasted throughout his life, the firm came first. Like Arthur and Ephraim, Roland had a strong sense of duty and continuity, and in this family, staff and business were inextricably linked.

If, moreover, there was a tycoon element in Roland's lifestyle and methods, he was yet basically old-fashioned by the standards of his day. The grip of Arthur, straitlaced, straightforward, cautious, devout and humble, and through him even that of the patient pilgrim Ephraim, was on Roland more than he knew. To him and to Norman, both extroverted, fun-loving and popular, the little world of their youth held out its attractions and its snares. But the fundamentalism of their fathers, if it no longer cramped their style, still provided balance and ballast, and the horizons of their lives had an apt perspective. Through the dangerous third generation, the ship stayed afloat. It would not be shirtsleeves to shirtsleeves, but a voyage of excitement, taking Arthur Ellis and Company into realms of business still uncharted, bringing to both consumer and company a rich and lasting bounty.

NEW DEPARTURES

It was a predictable consequence of the entry of Roland and Norman Ellis to the firm that their energy, ambition and imagination would soon stimulate policies of innovation and expansion. There is also, in business enterprises, a natural logic or momentum. At some times, it is difficult to go beyond mere consolidation or even stagnation; in another phase, opportunities may open up so rapidly as to outstrip practical resources of capital and management. By the middle 20s, largely through Arthur Ellis's carefully blended strategies of boldness and prudence, the company had a sound foundation for further growth. Modern technology, which was erupting into the life of the western world, had fascinating possibilities over the whole range of industrial production. Roland and Norman Ellis were no longer fledglings, had mastered the requirements of the business, and sought eagerly for new worlds to conquer. It was altogether a favourable conjuncture of circumstances.

The first move was a linear development from established success. Twenty years earlier, Arthur Ellis had pioneered the filling of mattress casings as a manufacturing process. Against the initial opposition of many retailers, and to their own ultimate advantage, the battle had been won. The filling and finishing of mattresses, on the other hand, was still tedious and time-consuming, done largely by hand. This kept up prices and kept down output. In the United States, however, the years after World War I had seen rapid strides and revolutionary changes in the mattress industry, and Arthur Ellis and Co. were alert and far-seeing enough to get the message. The first consequence was mechanisation. In 1925 plant was purchased to roll edge, button, beat and wrap mattresses. Bedding was now made by the company on machines which were among the most up-to-date in the world. The product was much more sophisticated, a big reduction was possible in hand labour, and output could expand.

A second development in bedding was bolder and much more hazardous. The Americans were also revolutionising the mattress industry by inner spring construction. Here also, Arthur Ellis and Co. elected to follow the overseas lead. The company introduced a new style of inner spring mattress by importing spring units, assembling them at the factory, and adapting American methods in a complex process of filling and finishing. The arrival of a consignment of springs, veteran employees still recall, was something of an event. They came in crates of 22 dozen, very powerfully compressed, and would fly to the roof like some crazy Jack-in-the-box when opened.

Technical difficulties, high costs of production and some degree of customer uncertainty rather postponed success. From the late 1930s, nevertheless, innerspring mattresses, in which

Arthur Ellis and Co. pioneered the New Zealand market, were a very substantial proportion of the company's activities. A word is in place at this stage on the methods and advantages of the innovation—as seen about the time when the innerspring mattress began to make headway.

Construction began from a large number of separate coils of manganese alloy spring wire, chosen for toughness, strength and ductility. Heat treatment was necessary to ensure that each coil kept its shape and returned to full extension even after being constantly subjected to depression by weight. Coils were first joined in rows crosswise by wire clips and each row was fastened to the next by wires running lengthwise top and bottom. The result was a stable spring frame in the shape of a finished mattress. Three hundred and sixty small springs, a catalogue of the early 1930s proclaimed rather proudly, went into the making of a double bed mattress. The spring unit was next cased in hessian, fine layers of wool trimmed to size were laid on, ticking was added, and the mattress was roll edged and buttoned to achieve the finished article. The provision of the necessary layers of wool was an element in the process for which special machinery was required. At an early stage, Arthur Ellis and Co. purchased a garnett from Britain which teased and pressed textile wastes in a layered pad. This equipment in itself represented a considerable gamble—the first garnett imported cost the company £5,500.

Since innerspring mattresses retailed at almost three times the price of the traditional kapok filled product, considerable attention was given to explaining their advantages. Even best quality kapok, every housewife knew, would not last for ever. The fibre rubbed together and tended to go to dust. Kapok and flock mattresses also tended to become hard or lumpy, and sagged on wire bedsprings. Ventilation qualities were not good, so that kapok and flock mattresses had to be turned and aired quite frequently. The innerspring mattress, by contrast, "would never wear out". By the 1930s, the company gave them a guarantee for 10 years. Initial price, a brochure emphasised to salesmen, was not the only consideration. The average citizen spent one-third of his life in bed. A mattress selling at £20 and lasting 10 years cost the consumer 1.3d per night. Ten years, of course, was seen as the absolute minimum.

Other advantages were also stressed, especially the resilience of innerspring construction. Every movement of the body flexed the mattress, which adopted a new supporting position. Lumps and hollows never developed. The springs, restless sleepers were assured, were completely noiseless. Ventilation, labour-saving housewives were told, was fully catered for by ventilation intakes combined with the slight bellows action of the

spring construction when slept on. The coiled spring mattresses also reduced sag—though the natural centre-sag of the ordinary wire mattress did cause the overlay mattress to sag in the centre even if an innerspring. This point, indeed, was something of a problem, for the innerspring mattress worked best and lasted best in a straight position. The optimum solution took another 10 years, when the company introduced a bedspring underlay mattress with stronger springs to hold the mattress horizontal.

In one respect, company publicity achieved something of an overkill, and with interestingly suggestive implications. The question was whether apparently fragile springs locked in an intimate if complex embrace would resist probable and imagined strains from the user. It was one thing to proclaim "the performance of innerspring construction, irrespective of how twisted, turned or jumped on". Even among those of decorous bedroom habits, unpleasant fantasies of collapsed coils, tangled wires and mounds of mangled ironmongery were at first rather likely to occur. With the showman's gift for a gimmick, Roland Ellis responded typically to the implied challenge. In 1929, an innerspring mattress was placed in the middle of George Street, Dunedin, and worked over many times by the rollers of a traction engine. To the satisfaction of the firm and the wonder of beholders, the mattress emerged from the ordeal unscathed. Many years later, in Hagley Park, Christchurch, an obliging elephant from Wirth's Circus stamped, rolled and gambolled on another innerspring product in what was soon shown to be the least destructive rampage of the year. Even if some customers wondered whimsically what Arthur Ellis and Co. thought they did in their spare time, these demonstrations were highly effective. Beyond question, this was what a later decade might have dubbed the James Bond bed.

Under the brand-name "Sleep-well", innerspring, kapok and flock mattresses won a large share of the South Island market. Arthur Ellis and Co. was the first New Zealand bedding manufacturer on a national scale. The disc portraying an angelic boy sleeping peacefully on a Sleep-well mattress which itself reposed gently on cloud nine became a familiar trademark, as did the accompanying legend, "The Sleep-well Mattress for a good night's sleep". There were other well-known slogans, some a little stilted by the slick standards of today. "Invest in Rest", the 1928 catalogue suggested, "Buy a Sleep-well Mattress". "Sleep-well, the mattress you will eventually buy," declared another advertisement, "only a good mattress can give the calm, unbroken sleep the body requires". In these latter days, when advertising agencies loom so large in the marketing strategy of businesses, it is a surprising thought that Roland Ellis planned and executed all the firm's publicity. Despite the depression, this

side of the business expanded steadily. If in the 1930s, as historians of the Nazi menace have suggested, the western world slumbered on, the South Island of New Zealand slumbered on Sleep-well.

To revolutionise the habits of New Zealanders in respect of that one-third of their lives about which they knew nothing was quite a memorable accomplishment. In the end, Arthur Ellis and Co. did that. The company's gamble on innerspring mattresses paid off, New Zealand adopted them for good and all, and other firms entered the market. In a survey some years ago, three-quarters of the sample expressed a preference for innerspring mattresses. In recent times, it is true, foam rubber became a real rival for a period, but failed to gain a growing share of the market. As a survey of United Kingdom hospital needs once stated, "there is life too in the resilience of good springing which the reluctant elasticity of rubber cannot surpass".

However important spring mattress production became, technical and market development must be seen in correct chronology. In the late 20s and early 30s traditional mattresses still made up the greater proportion of output. The decisive commitment was as late as 1936, when Norman Ellis toured the United States and Europe investigating the latest developments. He returned with invaluable information and a faith—that the spring mattress was the product of the future. Installation of machinery to produce springs locally, and planning for expanded output, were two aspects of a wide-ranging programme of company growth between 1936 and World War II. For Arthur Ellis, now far from the front line, there was mingled pride and regret—"We make mattresses now, I think we can honestly say, that are the equal of any made in the world. It was owing to the information and trouble taken by Norman when he made a trip that a great improvement was effected. We should have very much preferred to have bought our machinery from England, but we had no choice in the matter, for the reason that English bedding makers were so far behind that they also had to buy their machines from America."

Almost simultaneously with the introduction of automatic mattress machinery in 1925, Roland and Norman Ellis started another development which was much less closely related to existing business. When the 1925 South Seas Exhibition in Dunedin closed, Arthur Ellis and Co. tendered successfully for the cabaret building and shifted it to the factory site in Kaikorai Valley. There imported sewing and embroidery machines were installed for the manufacture of down quilts. This involved filling the cases with processed feathers; fairly primitive but

effective equipment to wash and dry feathers was acquired soon after. Since all quilts sold in New Zealand had previously been imported from Britain, the initiative was one of national significance. On certain aspects of the matter, Arthur Ellis must be allowed his own wry reflection—"The Reform Party were in power at the time and professed to have a great sympathy for, and a great desire to help the establishment of secondary industries, but the only item of sympathy we received from them was a charge of £300 duty when the machinery was landed. A great many industries in New Zealand have been spoon-fed by different Governments, but I can honestly say that it was not my lot to be amongst these favoured industries."

In view of strong competition from the imported article, the steady growth of down quilt production by Arthur Ellis and Co. must be seen as something of an achievement. Company representations to the 1933 Tariff Commission clearly indicated initial struggles and disadvantages. First, the plea was made to retain the current 20 percent duty on imports (as against 40 percent in Australia, where protection had given local manufacturers most of the market). Twenty percent, in the company view, should enable the English manufacturer to compete "and is absolutely necessary if we are to be in a position to hold the trade we have secured by dint of hard work and perseverance during the last five years". The company's products had now "attracted universal demand throughout the country", production had risen to 10,000 quilts annually (though demand was greatest in the lower quality ranges), prices had been reduced and workmanship had improved. These successes had been achieved despite the very depressed economic conditions of the period.

Competition from English manufacturers had been very severe, particularly in the lowest grade of down quilt, which had "a tremendous sale". Bedrock prices, the submission argued, were partly attributable to lower British wage rates. Inferior workmanship and quality of material were also mentioned. "If we took half the liberties some English manufacturers take, we would soon be told about it." For local quilt makers, moreover, distance from raw material supplies imposed some risks and the necessity to tie up working capital by holding large stocks. Finally, the English manufacturer had two seasons. Stocks unsold during the northern hemisphere winter could be offered subsequently in New Zealand, if necessary at reduced prices. New Zealand manufacturers, by contrast, had no such secondary outlet.

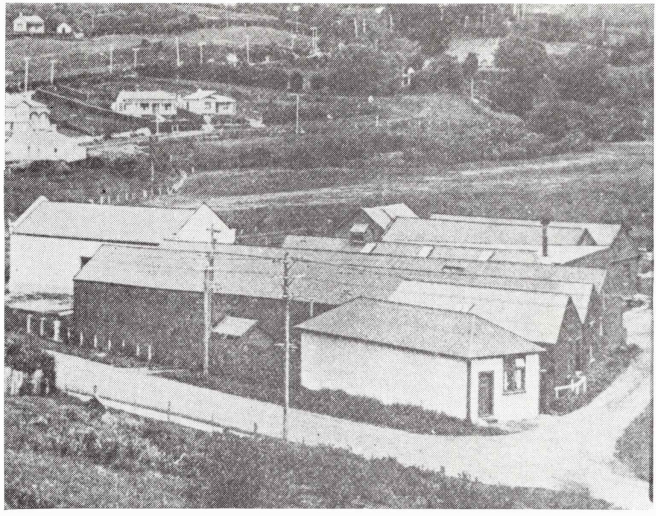
Despite these handicaps and the onset of world depression after 1929, business built up steadily. By the later 1930s production attained 40,000 quilts a year and the quilt room employed more than 100 women as well as a number of men. The existence of a labour-intensive department employing a large work force rather changed the character of the firm. In the hard times of the late 20s and 30s working girls were not hard to come by. Most recruits were accepted when they left school at about 14, and the company trained them on the job. A large proportion stayed until they married and children arrived. By 1975, for some of those who had started in the hungry 30s, the wheel had come full circle. Having reared their families, they were back again with the company, right where they began.

Whatever the similarities at the machines (and all that had changed also) the factory of the 1970s was a different world. Just as in other companies, it was a hard schooling in the years when the quilt room began. Absolute punctuality was demanded, mistakes might mean dismissal (especially if careless), nobody talked in the sewing rooms, nobody wandered off for tea, and nobody dared to let up. Except for supervisors, wages had a ceiling of not much over £2 a week. Security was the compensation—even in the slump, no one was put off from the quilt room, though they worked now and then on short time.

Ada, Rea and Billy Hamel were sisters who all worked for Arthur Ellis and Co., but Ada stayed longest and her position in the quilt room made her visible and memorable. Strict and forthright as she was, a terror to backsliders, no one doubted that she represented the highest standards of her day. As a girl of 13 in a short gym dress, Olive McKeich presumed to giggle at one of Ada's lectures. Forty years on, back with the company, Olive Hughes still remembers the consequences. As well as supervising, however, Ada Hamel had a considerable role. At first, embroidered designs were all imported from England and quilts were made up in the factory. Later, Ada did designs—with assistance from talented girls like Evelyn Knight and Marian Swan, as many as 150 quilt designs a year. All these had to be planned for different price ranges and markets, and choice and costing of materials were included in the brief. Designing, costing, cutting cards, hiring and firing, supervising over 100 girls—under the ever watchful eye of Mr Roland himself, Ada Hamel took it all in her stride till she left the firm and Dunedin at the end of World War II.

"Fairydown" quilts, in the 1930s, became a household word. New designs were prepared for each season and submitted to the critical scrutiny of Roland and Norman together

ARTHUR ELLIS, 1868-1945



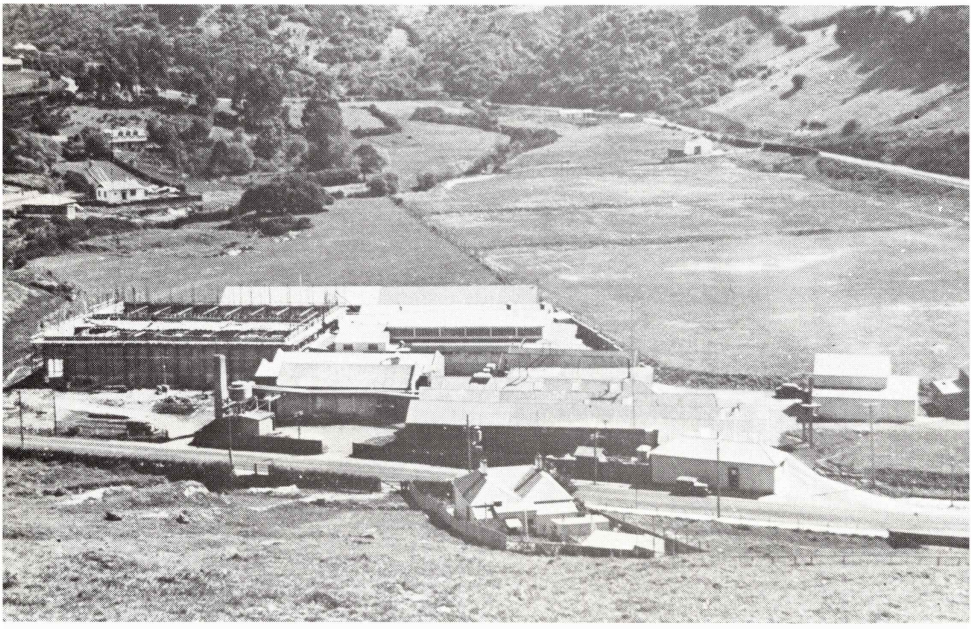
MILL

IN THE

VALLEY

Above: A modest enterprise, 1924—looking towards Brockville.

Below: Expansion of the 30s—view toward Fraser's Gully with social block under construction, 1938.



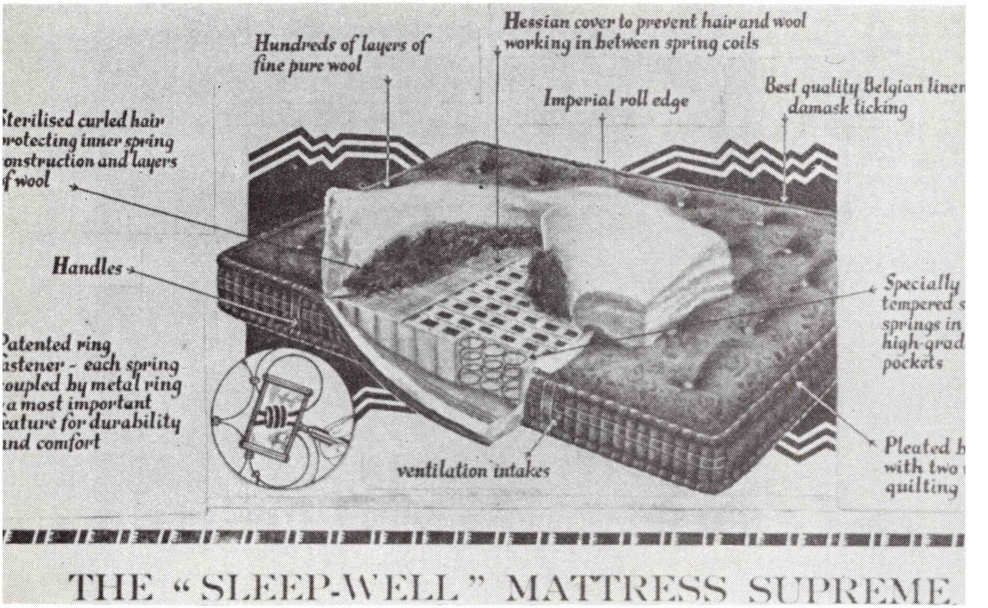
"A CLOSE-KNIT COMPANY"

Above: Seen at the Ball—from left Frank Cattell, Ada Hamel, Roland Ellis.

Below: Company rugby team (about 1937).

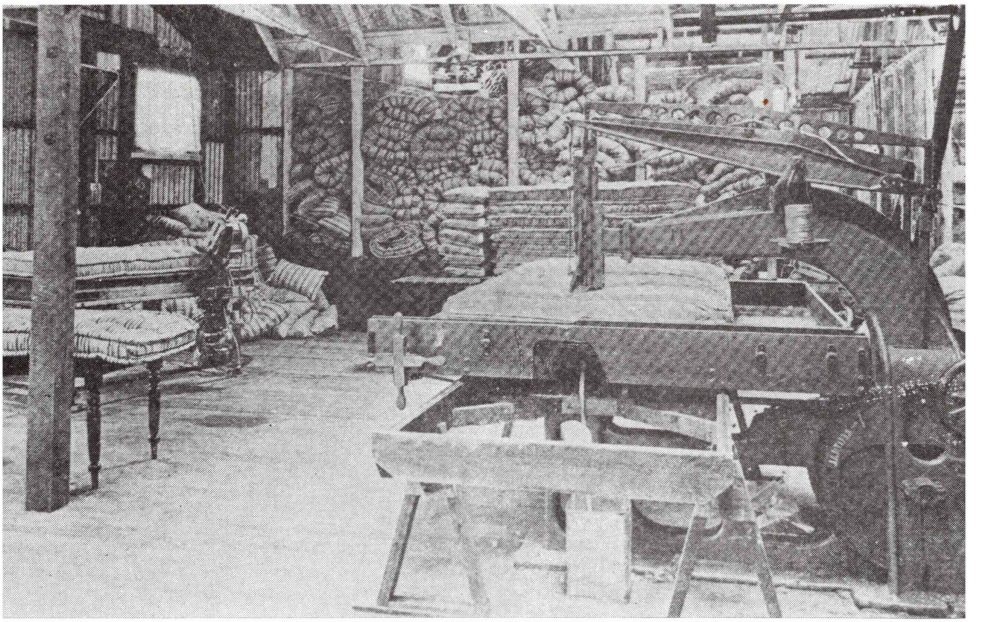
Back, from left: 1st John McGregor, 4th Gordon McGregor, 5th Tom Jenkins, 6th Norman Ellis, 8th Ron Galbraith.

Front: 2nd Bob Simpson, 3rd Dave McMeeking, 5th Herb Tyrrell.


Hessian cover to prevent hair and wool working in between spring coils
Hundreds of layers of fine pure wool
Imperial roll edge
Best quality Belgian linen damask ticking
Sterilised curled hair protecting inner spring construction and layers of wool
Handles
Patented ring fastener - each spring coupled by metal ring a most important feature for durability and comfort
Specially tempered s springs in high-grad pockets
Pleated h with two quilting
ventilation intakes
THE "SLEEP-WELL" MATTRESS SUPREME

Above: Innerspring mattress of the early 1930s. A diagrammatic representation for company advertising.

Below: Bedding room in the 30s. Newest buttoning machine in foreground.

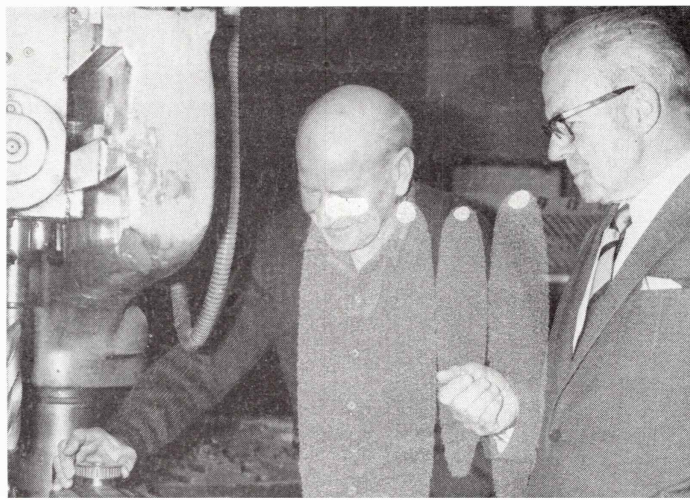


MEN OF MANY PARTS

Above: "A wonderful contribution"—Norman Ellis (middle with spanner) and construction team at Kaikorai Bowling Club.

Centre: "A lifelong interest"—Roland Ellis fording the Matukituki River.

Below: "Practical ingenuity"—Maurice Ellis and Norman McLean discuss an engineering problem.



FACING PAGE:

Top: A wartime expedient—mini-delivery in Christchurch.

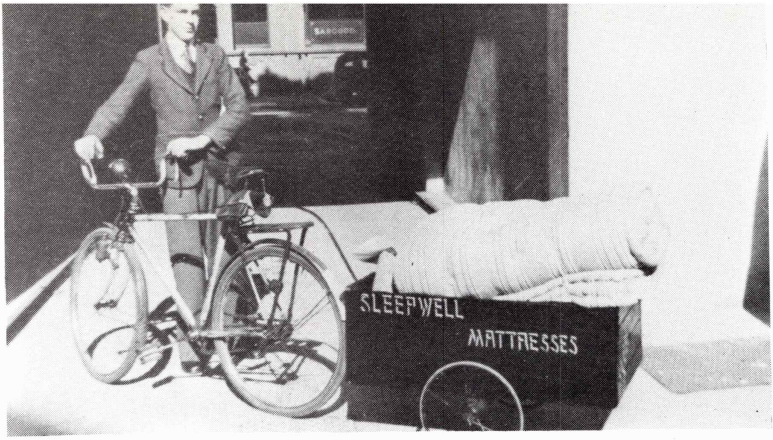
Centre: The company celebrates VE Day, Dunedin, 1945. (Norman Ellis holding hat; Maurice Ellis rear in hat.)

Bottom: Diesel does it — another response to war restrictions.

Top: A gentle presence—sewing room, Kaikorai Valley.

Centre: Friendly elephant snuggles down on Sleep-well (photographed in Hagley Park, Christchurch).

Right: Company social — from left: Mrs R. Ayres, Lorraine Lindon.


SLEEPWELL
MATTRESSES

ARTHUR ELLIS & CO. LTD.
L28.108

Sewing sleeping bag cases—married women were the foundation of a reliable work force.

HORNBY—A BOLD VENTURE

Frontage of the Hornby factory premises—"a fine new establishment".

with an annual assembly of the company's representatives. Demand was very seasonal. To spread the work load, case-making went on throughout the year and filling of quilts took place as the need arose, mainly from March to May. During that time Arthur Ellis and Co. would fill and pack 1,000 quilts a week—the equivalent of four bales of feathers a day. In the early years filling was done on a hand machine by a Mrs Reid, but she needed afternoons off. Her nephew Bill Reid took over filling the quilts full time, and still works with the firm.

The necessity to ensure a sufficient supply of feathers involved a significant extension of the company's horizons. Only a small proportion of needs could be obtained in New Zealand. Duck feathers were mainly wanted, and China was the main source. Amid the economic uncertainties and political turmoil of the 1930s, Roland Ellis devoted much time and ingenuity to making sure of requirements. Like Arthur in the initial stages of the kapok trade, he kept his options open and seized advantages where he could. His crisp, colourful letters, blunt as they frequently were, established the company's name and reputation among commercial houses in the Far East. In time, one company with extensive connections in that area, Northern Featherworks of Copenhagen, stood out as the best intermediary to secure Arthur Ellis and Company's supplies. Thus began a close association which lasted for four decades.

As production expanded and methods evolved, the feather treating plant installed in 1926 lacked capacity and versatility and became outmoded in a technical sense. After Norman Ellis's overseas tour in 1936, one element in the company's ensuing programme of expansion was to update and expand feather treating machinery. It was necessary once again to look beyond British sources, for Switzerland and Germany produced the best equipment. European machinery was therefore imported, and construction of a feather plant up to the latest international standards went ahead in 1938. The company however did much more than simply instal what they bought. Under the leadership of Maurice Ellis (by this time a member of the firm) a small engineering team subjected the machinery to critical and inventive scrutiny, studied out actual requirements and adapted, adjusted and innovated as they went along. When the new feather plant was put into operation in February 1939 the changes for which Maurice Ellis had been responsible made it, in all likelihood, the best plant of its type in the world. After 40 years, and with few alterations, it still gives entire satisfaction.

One unexpected consequence of this development was a serious rift in relationships within the firm. In the company's judgment, there was a need to have an expert in feather

machinery to advise on and tend the new installations. Through the connection with Northern Featherworks, an offer was made to a refugee German Jew, John Vollweiler, who had been working with that company in Copenhagen. Vollweiler arrived in 1938—a time when feelings towards Nazi Germany were running high. Possibly his real background was not adequately made known; the arrival of mysterious-looking crates of furniture was certainly observed with suspicion; the ingenuous but bitter prejudices of the New Zealand generation which had known World War I were also involved in what happened next, and the incident is a sad commentary on a whole chapter in New Zealand's evolution.

For whatever reasons, some of the men decided Vollweiler was a Nazi spy. In the centre of this group was a popular, outspoken, rather splendid and typical New Zealander, Dave McMeeking, sometime rugby All Black and foreman of the flock department. Dave was a real personality—every morning, winter and summer, he walked to work in an open-necked woollen shirt. His feats around the factory were proverbial; he could put a hook in a 6cwt bale of pressed clips and walk away with it on his back. He also had a kindly side, was good to the youngsters, and had the qualities of a natural leader. Dave McMeeking, however, was a 1914-18 veteran, and he "knew those Huns". Before long a large deputation was in Roland Ellis's office, demanding Vollweiler's dismissal. The "chief" explained patiently, but nobody gave ground. "All right," said Roland quietly, "I'll be sorry to see you all go." It took nerve and it caused consternation. Finally cooler heads prevailed, the men stayed on, and John Vollweiler spent 20 years with the company, winning universal affection and respect. It had however been a bad moment.

Diversification into quilt manufacturing was followed by other developments, mostly less significant and less lasting. By the early 1930s, the company offered pillows, camp beds, cots, settee squabs and blinds. Roland's alpine interests were also bearing fruit in the development of sleeping bags, still rather a novelty on the world scene. Until Arthur Ellis and Co. entered the market, the only ones available in New Zealand were those of Thomas Black and Co. of Greenock, in Scotland, imported by Alex Thomson Ltd. of Dunedin. Norman Ellis, Ada Hamel has recalled, took a special interest in sleeping bag manufacture, and was responsible for some real techincal breakthroughs, paving the way for the "Fairydown" bag of modern times. To say so much, however, is to anticipate. In the 1930s, the market was seen as limited to the hardy ranks of mountaineers, and manufacture was a minor fill-in job between quilt seasons.

Even before the new departures were established, Roland Ellis had peceived the advantages of moving into distribution. In 1929, probably against the inclination of other directors, he opened a warehouse in Dunedin. Quite soon, despite the depression, this was trading successfully in carpets, linoleums, curtains and a wide variety of fabrics, as well as providing an outlet for the firm's products. Under Ron Galbraith as manager, the Dunedin warehouse began in leased premises near the railway station and moved subsequently to Paterson and Barr's building in High Street. Warehousing, it became clear, was a good front for the firm. The sale of furnishings not only carried expenses for company goods but was in fact quite profitable. By 1932, a second warehouse was operating in Christchurch, and another was soon established at Invercargill. The first Invercargill manager, John Galloway, stayed 21 years and created a real niche in the life of the southern city, serving numerous good causes, prominent in musical activities and everywhere highly respected. "There has probably been no more popular businessman to leave Invercargill," a press report claimed at his departure.

Warehousing meant travellers, and travellers, in the earliest years, meant Ainslie Lawn. Young, fit and keen, with a background in textiles and the Roslyn Bible Class (his father was manager of Brown Ewing's), Ainslie Lawn was hand picked, with his usual sureness of touch, by Roland Ellis himself. The job was a daunting one, covering the whole area from Invercargill to Westport, with occasional trips to Nelson and Blenheim. Christchurch only was excluded. There fashions were a little different, the manager was his own buyer within budgetary limits, control was largely autonomous, and representation was a matter for local staff. Ainslie Lawn's circuit, however, began every six weeks and took five weeks to finish. Samples might include up to 80 down quilts, and display rooms were hired regularly in the larger towns.

Even though the firm supplied serviceable, up-to-date vehicles, travelling the South Island was hardly a cakewalk. Heat, dust and boiling up in summer, freezing temperatures and slippery roads in winter, delays from punctures, mechanical faults, working gangs and livestock any time—these were accepted hazards. In compensation, in the era before motor travel was taken for granted, there was the camaraderie of the road. Once, in Westport, while Ainslie Lawn's car was unattended, an electrical fault set it alight. Bystanders managed to drag out all the samples. Somehow, by next morning, a local garage had renewed, rewired and repainted, and the car was ready for the road. If some hotels were homely and pleasant, nevertheless, travelling also tended to be a saga of cold meals,

dripping taps, banging doors and parties next door. In Cromwell, disturbed by constant dripping from above, the firm's representative once climbed up through a manhole and tied up the ballcock in the tank. He slept well, but awoke in a welter of dirt and dust—a telltale souvenir of the expedition. Early departure . . . payment by post.

To some extent, warehouse managers and travellers ran their own ship. Especially in the hard days of the 1930s, they certainly carried responsibility, for stamina, shrewdness, judgment and patience were all at a premium. Some of the company's best men were active in this sphere. Problems increased after 1935, when import licensing began, local manufacturing started to develop, wholesalers tended to be bypassed and competition increased. Roland Ellis, however, kept a special eye on activities, and his leadership was at least equal to the challenges. In the first decade, warehousing was an encouraging success, more than justifying the firm's initiative.

To the world at large, Arthur Ellis and Co. did not emerge as one of the glamorous success stories of the period between the wars. By 1939, despite recent extension, the mill in the Valley still looked modest enough, and the warehouses, however significant to the firm, were scarcely a dramatic intrusion into the world of commerce. From another viewpoint, however, the company had made giant strides. In quilt manufacture, the initiative had been decisively wrested from English imports, and sales had risen to levels which, by the standards of the limited New Zealand market, were substantial indeed. In the bedding industry, a shrewd combination of dogged does it and alertness to possibilities of innovation had created a position of national leadership, even though full exploitation of the opportunity was not practicable.

Through factory, warehouses and products, finally, Arthur Ellis and Co. was known, and known in the right way. Throughout the South Island "Sleep-well" and "Fairydown" were brands the trade trusted, names the customer conjured with for quality, workmanship and style. Not the least element in this reputation was the company's acknowledged foresight—the habit, with new developments, of getting in first. Back at the Dunedin factory, there was also cause for satisfaction. At about 150, the work force was fairly substantial, disciplined, efficient and well disposed. The picture was above all solid, reassuring, suggesting unrealised possibilities, yet hinting at excitement. This company image reflected faithfully the character and outlook of a small, gifted, close-knit, and undoubtedly unusual family management team.

THE FAMILY WAY

By the mid-1930s, the growth of Arthur Ellis and Co. was transforming the problems of management. From something like 20 after World War I, the staff expanded to nearly 150. This alone opened up a new dimension. Developments in feathers, bedding and quilts involved sophisticated equipment for which high technical standards of maintenance were necessary. If, moreover, the firm had expanded into areas of opportunity, it had also placed itself in the arena of national and even international competition. To watch for manufacturing innovations and exploit them—even to break through locally by adaptation and invention—was the only means of staying with the front runners. These imperatives threw further responsibility on to the technical side. Finally, as the enterprise expanded, technical requirements of quite a different order imposed themselves in respect of office procedure, costing, budgeting and accounting, buying, selling and borrowing—in a word, over the whole sphere of financial management. For all the "Chief's" abundant dedication and flair for organisation, the scope and spectrum of the business were now too broad for detailed control by one man. At senior management level, even Roland Ellis had to be supplemented.

In other circumstances, this fact might have endangered the family hold on the firm. Almost providentially, however, Norman and later Maurice Ellis filled important management roles which suited their own abilities and ideally complemented those of Roland. In this generation, the resulting management team had unusual breadth and distinction for a middle level company. Personal relationships and temperaments, moreover, were in good balance. Where Roland and Norman were both extroverted and forceful, inclined to impulsiveness toward their problems and each other, Maurice always seemed unhurried, with the quiet persuasion of a scholar. Though confrontations were infrequent, his influence as an emollient was important. In these respects, also, sensible demarcation of responsibility compounded the advantages of family loyalty, mutual affection and respect. Without undue strain, the three brothers stayed together, and this was the condition of cumulative triumphs.

Norman indeed, actually preceded Roland as a company recruit. From the outset, however, Roland fitted unquestionably as "the man in the office". Not the least of Norman's qualities was to recognise quite early that there was an area of management and a range of issues where he should customarily defer. If that acknowledgment of Roland's leadership cleared the way for a harmonious life-long partnership, the immediate consequence for Norman was that he lacked a really viable career.

During the middle 20s, years passed in which he worked mainly as an operative. In the long run, as with Arthur, this had real compensations. To the end of his working days, Norman never feared to get his hands dirty and never shirked manual labour. Starting as a worker, he tuned in to the work force, and never lost their frequency. This quality they recognised instinctively, and they held him in enormous respect.

Big, buoyant, extroverted and intelligent, Norman was not made to be merely second fiddle. In his private interests, characteristically, he carved out an independent path, genial, generous, usually in a leading role. As with Roland, his activities are indicative. Very practical in outlook, Norman had an exceptional mechanical aptitude. His whole life was studded with projects, for himself and other people. Houses were among them. While still a boy, he helped substantially in constructing Arthur's residence at Karitane. As retirement drew near, he put up his own home at Wanaka. This venture was a saga in itself. The pioneers, Norman decided, knew what they were doing when they built in mud brick. Their houses were warm in winter and cool in summer—suitable to extremes of climate. After the soil on his land was tested favourably, Norman made his own machinery and produced 2,000 sun-dried bricks. He then largely built his house himself in holidays and weekends. If the thickness and strength of its walls would have done for a county jail, the finished design was also elegant and pleasing.

Bowls became a favourite pastime, almost a second avocation. The sport suited his gregarious, fun-loving temperament. The Kaikorai Bowling Club also offered an outlet for his inventive and mechanical talents and not least for his vision. In the early 30s he amazed members by fixing a motor on a mower, and making the contraption work. Later, he made himself responsible for importing the first coring machine in New Zealand —and tinkered with it till he improved it to his taste. In middle life, and this was a wonderful contribution, he saw clearly the importance of the Bowling Club as a social centre. Arthur, his father, a foundation president, enjoyed the game and its comradeship to the end. For many of that older generation, as Norman knew, the Club was a well-loved homing beacon, substituting for traditional rallying points whose appeal new life styles had undermined. The end was that a club pavilion should rise as a worthy sporting amenity and to meet the community need. The means were all Ellis, decisive and even dramatic. Norman mortgaged his home and insurance, lent sawbenches and tools, laid on the company's trucks, wangled countless other items of assistance, and personally led and exhorted the construction team. Two years later, when his wife Betty was presented with a golden key at the opening of the new pavilion, it was a great moment.

Not all Norman's exuberance went into practical accomplishments. Late in life, as the first secretary of the Wanaka Town Committee, he showed imaginative administrative capacities which, to some extent, his business career had not brought out. His cultural interests were also quite sophisticated. For years, he was a stalwart of the Dunedin Royal Male Choir, becoming president and a life member. Music, indeed, was central to his life, and he met his wife through that interest. Around the factory, Norman meant whistle while you work, and on slight provocation he would also burst into song. His Yorkshire priorities never failed him, and Ilkley Moor was his signature tune. At home, equally, he set a tone of merriment and melody, taking musical soirees or raucous students in his stride. For one of the family, the recollection of Norman conducting a radio performance of the Messiah with cake fork and cream sponge is a cherished and characteristic memory.

The very growth of the firm found Norman a place for which he was admirably fitted. Though he hated bookwork and reports, he liked and understood people. That, his outgoing personality, his basic humility and his drive made him a marvellous asset in the work rooms. Especially with female operatives, he was a great favourite—teasing, cajoling, sometimes blowing up, but coaxing out their best efforts and creating goodwill. Knowing his good nature, they often ragged him, but he usually got "his owen back", and familiarity never bred contempt. Roland represented a machine-like efficiency, and held himself more aloof, because of his heavy preoccupation in other fields. Norman was an amiable bear, softening the company's image and encouraging communication.

Logically then, production and personnel became Norman's ultimate field of action. In early days particularly, however, his mechanical talents were important. From the time when up-to-date bedding machinery was imported in the 1920s and a primitive feather plant was installed soon after, Norman was in practice the company engineer. By trial and error, exploiting real gifts for adaptation and invention, he kept the plant going and made improvements. In 1936, culminating this phase, it was Norman who toured the world to select innerspring machinery, order more ambitious plant for feather treatment, and bring back fresh ideas. Nearly all his conclusions were accepted, and almost without question. He was later, in 1939, able to recall with complete accuracy the date of purchase and cost of each item for a revision of the plant register. His technical flair and business acumen gave the direct stimulus for the great expansion of the late 1930s.

In fostering such developments, Norman stretched knowingly to his technical limits. Increasing size and complexity now required greater engineering depth. Norman acknowledged this freely, recognising his real role in production if only the gap could be plugged. Again, Providence was kind. The third brother, Maurice, now stepped quietly but surely to the centre of the stage. The time was right and so was the man. For the 30 years that followed, Maurice's appointment as engineer was the most decisive single happening in the progress of the company.

Like Eric, the eldest brother, Maurice completed an engineering degree in London, and his record was distinguished. Returning to New Zealand, he gained experience as an electrical engineer, including a spell on hydro projects in Central Otago. In 1936 he was considering a proposition in the North Island when Roland and Norman approached him. Since Maurice had already done development work for the company, he was well versed in the needs and opportunities. Soon the die was cast. The change from electrical to mechanical engineering meant quite an adjustment, and Maurice had not quite shaped his career toward the firm's particular situation. Almost at once, however, he found himself at home, and never looked back.

In a less obtrusive way, Maurice had his share of the family versatility. In his younger days, sailing was a keen hobby, and he was an early flying member of the Otago Aero Club, being pilot number 11. Later his magnificent home workshop claimed him, and cerebral pursuits like chess and bridge. Preeminently, Maurice also had the Ellis inventiveness and practical mechanical flair. This, with his professional training, made his a strong force. Quiet, patient, reasonable and gentlemanly, Maurice was an excellent foil to the others, who respected his separate style and deferred to him readily in his sphere. His academic background, moreover, had developed his strengths without, as commonly happens, distorting his self-image. Though he had not started in the rags, there was no "side" about him and he never overvalued theory. In his job and personal relationships, Maurice had his feet on the ground. All this company workers soon knew and appreciated.

There were plenty of immediate tasks. Following Norman's world trip, the decision was reached to introduce complete spring mattress production to New Zealand for the first time. Full processing for washing, drying and sorting feathers also seemed necessary; down quilts had an established national market and sleeping bags—still very much an extra—could well develop. There were urgent implications for factory accommodation. Maurice's first job was to design the layout of a raw material

building, plan a new office block and provide for his own engineering department. The requirements had to be integrated with existing and prospective manufacturing needs. The building programme went ahead, complex overseas machinery arrived and was set up, and the humdrum mill in the Valley had a new look of daring and excitement.

In these busy years, Maurice's total contribution was far-reaching, in some ways revolutionary. Step one was a first-rate workshop, and this he soon had. He surrounded himself there with practical men, an engineering team who had come up the hard way as apprentices on the factory floor. Norman McLean was the right-hand man—and the partnership kept going for 30 years. Alex Neason was drawn into development work, and stayed with it long after he might have retired. There were younger men, too, some serving their time. Roy Newman, badly burned in a kapok fire, was an apprentice with Norm McLean after his recovery, though he later found a career elsewhere. Gradually a team of engineers assembled, and would one day amount to eight or nine men.

Factory machinery offered a real challenge to engineering ingenuity. For most types of equipment, suppliers were few and nearly all British. So much that came was clumsy or ill suited to its purpose, with problems not thought through at a practical level. For a homespun New Zealander like Norman McLean, these inadequacies were a lifelong puzzle. Frequently forewarned, he never ceased to be surprised. And yet . . . if only . . . Maurice would stand over the offending weapon, saying nothing, interminably puffing his pipe. Quiet discussion would follow, and Norman Ellis too might very well take part. A trip to the drawing board . . . a Heath Robinson contraption . . . and Maurice Ellis and Norman McLean would tinker with it day after day. Bit by bit, or in a sudden glimpse, the solution would come. With one more machine altered, adapted, reconstructed or invented, the factory's possibilities would take another leap forward.

Over the years, examples of this method became legion. Nearly all lasted, and some were very significant. Even before World War II, the achievements were astonishing. Redesign of imported flock machines included the brainwave of reversing the drum. The result bore little resemblance to orthodox equipment but still functions and may still be unique. Operating advantages were considerable, versatility was improved, and capacity was ultimately boosted by a factor of 10.

Intensive manual labour was a particular target. Early in the piece, Maurice redesigned pressure equipment for filling quilts, saving manpower and cheapening costs. A little later, attention turned to kapok, which until that time had been beaten up and stuffed into bedding by hand. Machinery was evolved to do the job under negative pressure—possibly the first semi-fully automatic equipment in the field. The quilt room also felt the impact of the new broom. Examples however, merely illustrate, and could readily be multiplied. Nothing it seemed, was beyond the engineering team's fertile talents, and nothing was too small. As Ada Hamel has recalled, the workshop even noticed her special disadvantage—and procured a pair of left-hand cutting shears.

From its inauguration, the engineering team was a peculiarly New Zealand triumph. Professional expertise led it, but without remoteness. Men like Norman McLean had "been through the mill" and much depended on their expertise and judgment. The relationship was one of equality, a working intimacy without a long chain of command. No problem was far from the factory floor, and any operative might speak up or be consulted. This was the best side of the egalitarian tradition, and it paid the firm handsome dividends. More than this, Maurice Ellis's team embodied the "do-it-yourself" approach, the practical versatility which some have thought a conspicuous national quality. Nothing was taken on trust, whatever the label. The question was simply, how best to do the job. Plant might have to be modified, or even made, but the prospect frightened no one. Blessed are the triers, to whom all things are possible. In its tone of equality, its tradition of practical initiative and a certain robust suspicion of theoretically contrived solutions (especially if they came from overseas), the engineering team epitomised qualities of a New Zealand day and generation.

One chink remained in the armour of family control. In the four generations since Ephraim Ellis, the family has never produced a professional accountant. By the 1930s this type of competence had become indispensable, and Arthur had already recognised the need. Between him and Mr Leary, of Barr, Leary, a close business relationship had developed. The 1928 Annual General Meeting, however, heralded a new era. For the first time, Mr R. C. Burgess of the same firm (ultimately Barr, Burgess and Stewart) was in attendance. Already, Bob Burgess was well known and respected in accountancy circles, and the depression would soon enhance his reputation. At least in the south, he had no equal for pulling lame dogs over stiles—and planning strategies for good ones. For more than 40 years, without interruption, Arthur Ellis and Co. benefited from his advice.

In essentials, Bob Burgess charted the firm's course, more particularly perhaps through the dislocations and changing public policies of the 1930s, wartime difficulties and the problems of the subsequent period. For some of the company's most weighty and delicate negotiations—with Capital Issues Committee, the bank, insurance companies and Government departments—he rather than Roland acted as spokesman, and probably framed the strategies of approach. For Roland, in some ways an archetypal figure of private enterprise, adjustment to parameters of State control and intervention was far from easy. Burgess, with the sound advice of Jock Sim the company solicitor, kept him from going off the deep end, and helped decisively to secure legitimate needs.

As the enterprise grew, Bob Burgess was also drawn more closely into internal organisation. Well into the 1960s a regular bombardment of schemes and minutes kept updating ideas and procedures. Budgetary controls, target sheets, trend sheets, control periods, market information, manufacturing programmes, stock records—there was little his shrewdness and experience did not touch on, and his were the management systems the company created. Standing apart, never a director, R. C. Burgess kept a consultant's independence, yet stood unerringly by the Ellises as mentor and friend. His long contribution was of singular value.

Whatever the value of Bob Burgess, however, he had many other preoccupations and was necessarily remote from the day to day conduct of the business. In this area, also, a professional accountancy presence was imperative. The company was again exceptionally fortunate. Very soon, Bob Craigie was learning rapidly from Burgess, creating a promising professional foundation, and coming to know the Ellises and their enterprise through doing their audit. It was no disadvantage, in Roland's eye anyway, that Bob Craigie was a keen alpine man, as discreetly determined and successful in that activity as in his own career. The upshot seemed almost predestined; Bob Craigie moved from accountancy to Arthur Ellis and Co. and served as secretary from 1939. With the exception of overseas service in the war period, he has been with the company since.

It was not quite a bed of roses, for Bob Craigie was the only senior executive outside the family circle. He won and always enjoyed complete trust, and worked very closely both with Roland Ellis and with Burgess. For all that, he always seemed overshadowed, more even than the nature of his work implied. When the next generation reached maturity and the board room, he still seemed rather in the wings. Quick, intelligent and perceptive, a thinker and a shrewd judge of men, Bob Craigie

probably had the closest affinities with Maurice Ellis's style, and Maurice's periods of control left some happy recollections. The two sat down one fine Saturday morning over a project, and Maurice soon became absorbed. Lunch and all else was forgotten and Bob Craigie stayed with the pace. By 5.30, wearier but wiser, they had worked out the basis of a pricing system which served the company for many years.

How far, one wonders, was this incident indicative? With modesty and discretion, Bob Craigie would rather disclaim his own constructive role. Mainly, he would suggest, he implemented policies, and he certainly made it a tidy ship. In all probability, nevertheless, there was much more to it. It is tempting to cast him as a sort of mayor of the palace, knowing everything, arranging much, saying little, tactfully steering directors in directions they had to take—but never emerging so clearly as to blunt his special influence. Even if his real contribution cannot be accurately weighed, one conclusion is apparent. Bob Craigie was among the half dozen men who gave Arthur Ellis and Co. its contemporary dynamo.

When R. C. Burgess appeared on the scene, capital reconstruction was imminent, and became his first advisory task. In 1928, in accordance with needs of growth, company capital was increased from the initial 1913 figure of £7,500 to £16,500 by the creation of 9,000 fresh shares. These were issued to Arthur Ellis, but he transferred large blocks to Roland and Norman, and this put them in effective control. When the depression struck soon after, net profit fell to a low point of £587 in 1931, but reserves remained substantial. When £30,000 or more was ploughed into the expansion of the late 30s, a good part of the capital requirement came from undistributed profits. Since business was flourishing and annual net profit was now knocking on £10,000 a year, capital ratios had to be watched. By 1939, it was judged prudent to issue 9,000 further preference shares, mainly to Rodley Investments Co. Ltd., a family company. This device, for the first time, attempted to reinsure the dangers and burdens of narrow family control. It was an issue on which much attention would centre in subsequent decades.

The depression amply confirmed local feeling that Arthur Ellis and Co. was a solid and responsible employer. Then on the verge of retirement, Arthur made his influence felt, and his own early hardships clearly animated his thinking. When the world collapse came, Arthur gathered the whole staff and spoke to them in his homely way. "Things are going to be bad," he stated, "but the company will not put any married man out of work unless it is impossible to pay him. Other staff will have their jobs guaranteed as long as there are resources

to keep them on." Arthur Ellis then quietly detailed the property he had and the situation of the firm, and explained what he thought could be done. In the event, some operatives worked short time, especially by missing Saturday mornings, but the undertaking was kept. Quite often, there was no work at the mill, but Roland always found something. Through the depths of the slump, staff grubbed gorse, cleared land, painted houses, laid concrete, kept active and never knew despair. It was, in a small way, a Rooseveltian demonstration, and it won much gratitude. Remembering the hard times, some of the best workers stayed with the company for life.

One unlooked for consequence of the depression had a certain gruesome humour. After the area of Ellis Park was taken by the City Council in 1926, it was used as a tip for some years to provide filling. During the depression, as a Scheme B relief project, work went forward to create the present playing fields. The trouble was that hordes of rats lost their home. Attracted by spacious premises next door, with all mod cons like dust, flock, feathers, ticking and kapok seeds, they migrated to the mill. The enterprise moved with rats, and the damage was enormous. They chewed ticking, bit through bedding, ate into mattresses, tore up quilts, ruined fabrics, dirtied down and kapok, nestled in feathers, stuck in pipes, clogged machinery—in a word, brought activities to worse than a standstill. Herb Tyrrell, an energetic feather worker with plenty of ideas, at once went on to double shift as chief trapper and generalissimo in the crisis. Arthur Ellis and Co. provided their own useful bait of 3d a rat. For three or four months the fortunes of war oscillated —Herb's strategies and troops against successive regiments of the invader. Finally, Herb began to win. His secret weapon, printer's glue spread out on boards with cheese in the middle, was alone responsible for countless enemy casualties. Though the company never quite eliminated rats, careful precautions, from that time, kept the problem under control.

In other ways, Herb Tyrrell was a memorable company figure. A Labour Party stalwart, he was an early advocate of unionisation. In the close-knit atmosphere of the firm, with near feudal implications of family control plus a work force in the Valley, and because hard times dictated caution, headway was not rapid. Almost passionately inclined to laissez faire concepts, Roland Ellis was less than encouraging. There were a few collisions. Herb once obtained a dossier on United States procedures for sterilisation of rags and advocated forcefully that the firm's procedures should be comparable. Once, at a Conciliation Conference in Wellington (where Maurice Ellis was present on the employers' side), he blew up the meeting with allegations of collusion. Roland later remonstrated forcefully,

but nobody seemed to harbour a permanent grudge. Herb Tyrrell and his man Friday, Tommy Jenkins, pressed on—Upholsterers and Cabinetmakers Union, Storemen and Packers Union and Flock, Felt and Feathermakers Union all established bridgeheads in the factory.

When the Labour landslide took place in 1935, Roland Ellis at once recognised that it meant a new era. He came to the feather department and talked it all over with Herb. Even if there had sometimes been acrimonious words and disagreements, management and organised labour could work together. "If this country had six Bob Semples," Roland finished up, "I'd support them to the hilt." The compliment was soon returned. As President of the local Labour Party branch, Herb was soon after discussing industrial conditions with D. G. MacMillan, Minister of Health. "If we had 12 men like Roland Ellis," said MacMillan, "socialism wouldn't be necessary." It is a pleasant postscript that when Herb Tyrrell was hard put to it bringing up six small children, Roland took an interest in his difficulties and helped by finding him paid gardening work in weekends.

Whatever the basic implications of paternalism, the company was close-knit, the tone was friendly and labour problems were rare. Outside office hours, there were no real social barriers. During the hungry 30s, indeed, the company had a central role in the life of the staff. It was a penny-pinching grind for most, when many entertainments now taken for granted seemed too expensive. Very few families had cars for excursions, only some homes had radio, and TV was still unknown. The working week was longer, and greatly extended by family chores. The hunger for spare-time diversion was possibly the keener for these limitations and commitments, but it had to be cheap.

Through social activities, Arthur Ellis and Co. helped to fill the gap. Rugby teams and cricket teams (with provincial stars like Gordon McGregor and Bill Boock) raised enthusiasm, drew the staff together, and made their own tradition. Forty years after meeting one Arthur Barnett adversary on the rugby field, Bob Simpson would play the same man at indoor bowls. There were darts competitions, table tennis evenings, socials, children's Christmas parties and other entertainments. Momentum grew when, in 1938, the company constructed a building with two dining rooms and a large social hall. The staff promptly formed the Elco Social and Sports Club, with a subscription of 1s 6d. Close to home, mates one knew, a bit of fun and easy on the brass—a pretty good formula for a pretty rough era.

To our own age, so highly mobile and spoiled for pleasures, the annual picnic appears as a curious institution, uninviting and incongruous, a sort of pterodactyl from antique social

wastes. And yet, we are only 40 years on. Annual picnics were once notable events, the highlight of the summer, and Arthur Ellis's not least. There were good sites north of Dunedin, especially Evansdale and Warrington. Company trucks would take out a boiler, ice cream, sweets, cases of apples and equipment for events that were musts like the tug-of-war and sack race. The staff, the children and the extras would make their way by excursion train. A day of swimming, eating, lolly scrambles and races would ensue, until the five gallon keg was empty and a tired, sunburned crowd boarded the evening train back to Dunedin. Harrington Point was another good spot, and the routine was much the same, except that everyone sailed gaily down the harbour by launch and returned on the evening tide. Picnics, large or small, are commonplace enough now, and rather in the discard. In its heyday, Arthur Ellis's annual picnic aroused a tremendous sense of occasion.

The other great happening was the ball, held in early days at the Savoy, but later in the social hall. The ball took place in June (sometimes to the tune of heavy frosts or snow) and coincided with the annual quilt showing when branch managers, travellers and agents gathered to view and approve the new range of designs for the following year. In his own recollections of the firm, Graham Ellis has aptly captured the flavour of the event—"for weeks ahead, a team would transform the social hall into a Fairy Grotto or Maori Pa with the most lavish and spectacular decorations. Duly on the Friday night long frocks and best suits would be donned and everyone went to a pre-ball party. By 9 o'clock most people had rolled up and dancing would begin. At first it was gentle with a maxina, a waltz, or a foxtrot, but as the evening wore on the country style band would warm up to the great climax of the Lancers and the Alberts. In between dances, people would go down to the cars to have a "nip" to keep out the cold. Someone always had to stoke the boiler to keep up steam for the heat, and as the boiler room was the warmest place around, it became the favourite place for the older ones to have a nip. It was here that Frank Cattell, the North Island agent, held court. Frank was one of those rare people, a born raconteur. He would tell story after story, each more hilarious than the last, and with complete mastery of dialect and timing. We came to rely on him each year to bring a new bunch of stories and were never disappointed."

By 1939, Arthur Ellis and Co. could view its situation with some satisfaction. In the years since Arthur had deliberately started to slacken his grip, bold initiatives had been taken. Innerspring bedding, quilts and warehousing had all worked out well. Though business had inevitably fallen off in the depression

years, the company had weathered that storm very well, and confident expansion had followed. By a fortunate chance, three of Arthur's sons had made their way into the business. Their separate talents and experience had meshed together admirably. Three main props of management—administration, personnel and engineering—were solidly provided by the Ellis family, and the financial expertise of Burgess and Craigie guaranteed the fourth corner. Roland had two sons growing up, and Norman a family of four. Still at a distance, pardonable hopes of succession could be entertained.

Staff, likewise, could review the record and count their blessings. During the great trauma of the slump, they had come through more or less unscathed. That alone was a mighty thing, anchoring them to the security they had found. Feathers, flock or kapok, certainly, was a grimy game, not quite what a man might choose. The quilt room was clean enough, but the work and conditions were exacting, the company was a strict master, and the pennies were distributed with care. There were many compensations all the same, as even Herb Tyrrell and Tommy Jenkins knew, for all that they fanned the factory into unionisation. Management and staff coexisted in respect, with a sense of common purpose. The company was personal, valuing and considering people, a present help in trouble. If enterprise built up a work force, concern created a community. Finally, expansion and optimism were in the air; for staff as for management, prosperity held rosy expectations. Not all could foresee, in 1939, that harder times were just around the corner.

PERSPECTIVES OF CHANGE

The outbreak of World War II did not at once have serious consequences for the company. Though some of the younger men went off to the forces fairly soon, it was an advantage that women made up a high proportion of the total work force. For some time, their employment was not affected. The three Ellis brothers were all rather outside the age group from which the first overseas echelons were recruited. To begin with, there was no abrupt dislocation of management. Even when the Battle of Britain began in earnest in 1940, moreover, most New Zealanders—apart from steep taxation, growing restrictions and mounting anxiety—still found themselves in something of a twilight war. In quilt production and sales, Arthur Ellis and Co. had a record year in 1940.

The further outlook, on the other hand, was bleak. Imports were indispensable for nearly all the company's products. Shipping, it seemed, might be the Achilles heel of the Allied war effort, and the company's supply position deteriorated steadily from serious to grave. Prudently, the directors had stocked up fairly heavily in feathers and quilt materials, but this did no more than give extra breathing space. Before long, the new feather plant, commissioned only in 1939, was more or less shut down for the duration. On a rapidly decreasing scale, quilt manufacture continued, but filling was provided by laminated wool pads. It was another omen of the times when two successive shipments of quilting material went down at sea —and the girls in the sewing room had a fortnight's holiday on full pay.

Prospective embarrassment over excess staffing vanished at once when Japanese entry into the war gave another cruel turn to the screw. Arthur Ellis and Co. was not classified as an essential industry, so that quite a number of women were manpowered out. Other repercussions were fundamental. First Roland was called up to the Mounted Rifles and stationed, fortunately, at Karitane, but his service was brief. Norman went to the artillery, but also stayed close to Dunedin. Both brothers had worrying responsibilities whenever they could snatch a respite from commitments in the forces. Maurice, predictably, went to the Engineer Corps and was more or less removed from the scene when posted to Christchurch. It all meant that Roland and Bob Craigie, as secretary, had to run everything—until Bob Craigie was called up for service in 1942 and served in the Middle East and Italy until the end of 1945.

Changing priorities, in fact, had resulted in special consideration. American camps and hospitals were now being set up in New Zealand, and ships converted to various military uses

needed bedding. Arthur Ellis and Co. became an essential industry and entered a busy period producing khaki drill covered mattresses for the services (mainly for use in New Zealand). For the same reasons, a limited recovery took place in quilt manufacture. Young women were manpowered to the factory—and at least one, Mabel Braid, is still with the company. Ada Hamel, who had progressively reduced her responsibilities, came back full-time to take charge of the sewing room, and still distributed aspirins to her girls at 1d each. War conditions meant extra work, and possibly extra play. This market, at least, seems to have been quite buoyant.

Whatever the national contribution, reviving activity was no more than a holding operation in terms of company progress. Only taxation reached record levels. Despite substantially reduced appropriation to reserves and replacement, net profit in 1942 was barely half that of 1940. This set the pattern for the period until 1945. Even if output was lower, however, Roland Ellis found himself a sort of Horatius at the bridge. Work and worry were not among the many shortages. So many facets of the business were under disadvantages and called for improvisation. Transport was just one of the problems, with limited petrol and one of the company's trucks commandeered for the army. The time-honoured ploy of sending mattresses over to Dunedin on the cable car (6d each) rather came into its own. The mainstay however was a farm tractor which ran on diesel, with a waterproof cab and a large covered trailer for its bulky cargoes.

Despite such local preoccupations, the directors were very sensitive to the needs of the boys overseas. At an early stage, it was decided to subsidise the service pay of every employee serving abroad, and an effective scheme was devised to make this possible. At the choice of the man concerned, the company took out insurance in his name, made regular payments to a dependent wife, or invested for a lump sum on return. The mechanics of this assistance may have focussed attention on longer term possibilities. It was also during the war period that the basis of a company superannuation scheme was worked out, and it came into full effect as soon as hostilities were over. One other gesture was greatly appreciated. During the 1930s, Arthur Ellis and Co. had opened its own buying office in London. During the war period staff who turned up in Britain were sure of a warm welcome from the manager, who provided entertainment, advice and advances. After the war Miss Karwood became London manager until her retirement in 1970, when the office was closed and the company elected to operate through a clearing house.

Roland Ellis was keenly affected by the personal aspects of service overseas. His feelings were doubtless sharpened by the fact that his elder son Arthur served in the navy, largely in the Pacific war, while Murray, the younger, became a pilot in the Fleet Air Arm. Both joined up directly from secondary school. A spare office became the headquarters of a food parcel scheme for company and Alpine Club men and other associates Roland wished to remember. He personally wrote and produced (and his secretary Carol Hortor typed) a cheerful, informative newsletter for Alpine Club men scattered throughout many theatres of war. Their frequent letters to him were carefully read and extracts collated and included to keep them all in touch. Apart from public patriotic activities in which the company participated, in short, management made a special and personal effort.

At long last, in 1945, the grind was over. VE and VJ day came in quick succession, with staff joining the city's celebrations en masse. The immediate effects were a little unsettling. When, soon after the war, Montgomery of Alamein came to Dunedin, permission was not granted for girls in the sewing room to go and watch. Joy Maiden went anyway, lost her bonus and even wrote "well worth it" across the time sheet. To the older school, disciplined by fear and the depression, gestures of this sort were a little unheard of.

The incident had a symbolic quality. For those who cared to see, indeed, there were signs that the experience of 1939-45 had swept away older habits and assumptions beyond recall. Quite suddenly, subsistence wages and unemployment had become politically unthinkable, in New Zealand even more than in most Western countries. In fact as well as in belief, the long buoyancy of the economy after 1945 would banish these spectres. Inflation, regulation, frustration—these, in business, would be part of the price for the rising curve of expectation. Social habits, also, had suffered a sea change. Spirited and imaginative, the new generation would seek and make choices and stand their ground, abandoning the docile caution and conformity the slump had bred. There was a dangerous as well as hopeful side to this independence of outlook. Employers would operate within a new framework, in which some time-honoured tactics would seem irrelevant or monstrous or mad.

To a degree, Arthur Ellis and Co. soon revived normal conditions. An enormous backlog of demand had built up in the war years; with the return of servicemen, also, many new homes were being set up. The first objective was to try and meet the market. For mattresses, the situation was far from easy. Continuing turmoil in Indonesia closed off the best kapok supplies, and steel wire for innersprings was very scarce. For a time, flock mattresses were the only answer. Clothing restrictions,

however, had greatly reduced the rag supply. Maurice Ellis came to the rescue by designing and making silk cutting machines that would process hard cotton from salt bags, silk, and even small off-cut pieces that could not previously be used. In addition, a four-stage machine was imported from England and split into two fine-cutting machines. All over the country, the firm hunted down rag wastes with grim-eyed determination. Available supplies were fed into this battery of machines, providing flock for mattresses and supplying upholsterers who were themselves also under siege from inflated furniture demand.

In the quilt room, trouble came from the social rather than economic consequences of the peace. During the 1930s, 75 percent of women employed there had lived in the Valley, and a high proportion were young people who started straight from school. Family expectation, job scarcity and transport problems had been important factors in that situation. In the aftermath of war, one conclusion soon shouted its dismal message. In a buoyant employment market, girls were heading for the city. They did not want to work in the Valley. If settled married women had been available from homes close by, this might not have mattered. The work force would just have been different, a little older. The Valley, however, was fairly conservative; women with young children still tended to think of the family as a full-time job. Otherwise, it was very relevant that housing in the district went ahead very slowly until about the 1960s. The pool of mature female labour was in reality extremely small.

The company reacted imaginatively to these difficulties. If the work force would not come to the company, the company must take the work to them. In 1946, Walker's second-hand shop in Broadway was purchased and converted into a work room. A staff of 50 was recruited fairly easily and labour turnover was encouragingly low. Quite soon, Broadway had a greater output than the sewing section at the main factory. In addition, to try and attract girls from the country (and with an eye to migrants), a property at the corner of High and Melville Streets was bought and renovated to luxurious standards as a hostel. A Dutch couple from Indonesia, Mr and Mrs Bos, were appointed as managers. The hostel, however, never had more than eight girls in residence and was not an economic proposition, especially as the company undertook to provide free transport to and from work. In Invercargill, in a further effort to supplement available labour, another sewing room was established under the experienced and genial eye of the firm's local manager, John Galloway. Despite all efforts, a stable and experienced work force could not be built up, integration with Dunedin activities caused recurrent problems, and the initiative was abandoned after only a few years.

As Broadway went from strength to strength, the company was mindful that the lease of the Dunedin warehouse at the Paterson and Barr building in High Street would run out in 1954. It was a tempting objective to consolidate the warehouse and the work room under one roof. This became possible in 1955 by the purchase of a building in Filleul Street near the Town Hall. Although internal renovation resulted in a rather smaller warehouse, sewing room space was nearly double that in Broadway. Ten more operatives were recruited and working conditions were extremely pleasant. Because the main shopping area of Dunedin was shifting to George Street, there was no trouble getting good staff. Regarded as an expedient, Filleul Street made an excellent contribution until plans for permanent expansion were ultimately realised and the premises were sold off in 1963.

Undoubtedly, one factor in the happy and productive record of the city workrooms was the supervisor who opened and ran both of them, Peggy Ford. Experienced in the work of the main factory, sensible, straightforward and good humoured, Peggy Ford tackled her problems in a modern style, with staff rather than above them. After Filleul Street closed, she returned to the factory sewing room, which she still controls. Peggy Ford was invaluable in a period when new, inexperienced operatives had to be recruited, employment stability was much lower than before the war, individual standards of craftsmanship tended to be sloppier, care of machines could not be taken for granted, and some employees needed careful handling.

Overall, the quilt section was well placed to take advantage of reviving demand. Despite high turnover by pre-war standards, a total staff of about 110 women was employed. Since Ada Hamel had left Dunedin immediately after the war, design was now the sole responsibility of Lorraine Lindon, who had in fact started with the firm in that field some years earlier. Roland Ellis brought her in in a characteristic way. She rode horses with Mrs Roland Ellis and quite often came to the house. "Do you know anything about drawing?" asked Roland suddenly one day. She did. "Do you know anything about quilts?" Not much. From that point Lorraine Lindon found herself swept into a three-month trial—a typical Roland device, which Hud Spiers and other company operatives also recall as their starting point. At the end of that time Lorraine Lindon tried to remind him that the trial period was up. Roland rapidly changed the subject and she stayed for 30 years.

It was in fact a challenging assignment. Although, in the 1930s, embroidered quilt tops had been imported, that phase was past. Lorraine designed them all, collaborating with gifted

machinists working machines the engineering section had adapted. Each year staff capabilities, materials and fashions were different, so that matters never stood still. It was also her policy to modify traditionally ornate Victorian designs to suit changes in public taste. To begin with, there was some company resistance to this necessary shift in approach.

Artistic, independent, with the assurance of a professional family background, Lorraine in other ways also blew winds of change through the factory corridors. Though she worked very hard when ideas came, she never fettered herself to company routines. Such habits, at first, were a little resented by the older school, but were doubtless useful in leavening fixed attitudes. Results, in the not very long run, spoke amply for her. Every year, designs faced the acid test of inspection by directors in April or May. Later, as in earlier times, the work was "thrown to the wolves" when company representatives met before the annual ball. Suggestions made then could often be incorporated, and this was valuable because different areas required variations in style. Both Ada Hamel and Lorraine Lindon visited Australian quilt factories during their years with the company . The latter, it is interesting to recall, found enterprises there small-scale and backward by Dunedin standards; she did not have much to learn.

Amid the problems and opportunities of the post-war period, it was enormously encouraging that members of the next generation now began to join the firm. Though Arthur Senior had died in 1945, a second Arthur, Roland's son, came in as soon as he left the navy. The pattern was immediately set for the next generation—he started at the bottom, learning to work the bedding machines. A further apprenticeship in the feather section followed. Arthur stood out at once in terms of personality, ability to handle people, the characteristic family buoyancy, and native wit. When Bill Patrick left the quilt department to run his own furnishing business, it was logical and welcome that Arthur should manage that section.

Some four years later, three more Ellises joined the company in quick succession. Murray, Roland's other son, had returned from the Fleet Air Arm to Canterbury University, where he took an engineering degree. Immediately after, he started in the engineering section. It was, to be sure, a period of expansion, when new machines were being installed or adapted and buildings were going up or planned. Existing plant, also, was considerable and fairly sophisticated, with quite complex maintenance needs. For all that, much of the work, initially, could not exploit his qualifications. Keen involvement in mountaineering, together with broad and thoughtful interests in the

world about him, doubtless helped to tide over a time of preparation. Unobtrusive, a man of few words, conspicuous only perhaps in a rock-like steadiness, Murray served out his initiation with quiet dependability.

Lindley, Norman's second son, started out with the company auditors, Barr, Burgess and Stewart, but was quite miscast in accountancy. Restless, inclined to impatience, not temperamentally suited to exacting routines, a man for ideas rather than detail, at home with people not with books, Lindley himself saw that company expansion could provide the setting for him. First of all, Norman may have thought, his impetuous confidence ought to be a trifle tamed. Like his father and grandfather, Lindley made his debut sorting rags and wastes. It must have been a crushing experience, but he stuck it out until a key role opened for him.

Graham, younger brother to Lindley, was in yet another mould. Big boned and tall, he clearly recalled the Yorkshire connection. At the University of Otago he completed a B.A. and was notable even then for broad capacities and interests and was something of a student leader. Intelligent but scarcely intellectual, he was already devoted to the mountains. Pronounced social talents might well have deflected his course, but for his Yorkshire balance. Quite early, however, the company's disciplines claimed him, and moulded his style. Graham started as a cutter in the quilt room with Arthur in 1951. Later, he took charge of the packing room for quilts. In 1953, as the result of an offer from the company's long-standing associate, Northern Featherworks of Copenhagen, he was chosen to spend a year in their factory. The interlude was timely, for John Vollweiler died while he was away. When Graham Ellis returned to Dunedin, blending feathers and buying at once became his responsibility.

For the time being, scope was lacking to use the new family executives to full advantage. To some extent, for Lindley in particular, the best direction of effort had still to be found. The fourth generation, like the third, had however rallied to Arthur Ellis and Co. in numbers which retirements and expansion would probably justify. In the same way, too, the men of this generation had promising and different qualities, and these again were curiously complementary. The essential was that the group should stay together, with the business, biding their time for real responsibility.

Rapid development, indeed, was bringing that closer. From 1948 to 1954 the value of production rose by 75 percent. The three directors, it is true, still controlled management in a close-knit personal way. Each one still read the main morning mail

quickly, and decisions could be made at once without formality. Size however, dictated more delegation, and also began to indicate different methods. On R. C. Burgess's insistence structured management and more institutional Board procedures were steadily adopted. Capital movements, in fact, made such progress necessary. In 1948, the creation of 53,500 new shares increased capital to £79,000 and a further 30,000 £1 shares were issued in 1951.

From this point, an acute dilemma appeared which would preoccupy company thinking for the next 20 years. Opportunities had to be grasped and competition met or forestalled by new development. In an increasingly complex and capital intensive industry, that meant heavy and continuing outlays. On that basis, narrow family shareholding involved great strains, for the maximum possible had to be ploughed back and fresh money had to be found. Even by the 1950s the working shareholders were not in a position to find the requirements for desirable expansion. Deaths, with problems of duties, transfers and proliferation of shareholding could make the situation all the more anxious. If momentum was to be sustained, therefore, the logic was to open up the company. The price however, was not to be calculated only in money terms; the total independence and privacy of the family combine would ultimately vanish.

The first step was taken in September 1953. Arthur Ellis and Co. became a public company. Simultaneously capital was increased (to a total of £159,000) by the issue of 50,000 £1 preference shares. As chairman, Roland Ellis commented in the Annual Report for 1954—"because of the inflation of the times, high taxation since 1939 and the necessity for still further expansion, the company felt itself called upon to strengthen its financial resources by inviting capital from without. That the company's requirements, though modest, were so abundantly over-subscribed speaks well for its standing in public opinion." Total family holdings, of course, were still overwhelmingly preponderant. Apart from legal formalities, especially in respect of disclosure, day-to-day business continued very much as before.

Product diversification, as well as more expansion, had boosted production and earnings as well as inflating capital needs. From the time the garnett machine was imported, cotton and wool wadding in layered pads had been used in innerspring mattresses. Surplus production, and cotton felt fluting as a related product, were sold to the motor trade for upholstery. Other minor outlets were becoming established by the time of World War II. In 1945, however, motor industry and clothing trades both sought a further development. Could wadding be made with a coating on both sides so that it could be rolled out

and cut to shapes? Arthur Ellis and Co. did not have the technology for the task, but knew of a precedent. Imported material of the sort could be obtained, and was very expensive.

Though doubters thought it hopeless, Maurice Ellis's engineering section took the solution in hand. Helped by the architect Jim Hall-Kenny (an Ellis in-law) and with much hard work from staff like Norman McLean and Alex Neason on the practical side, Maurice Ellis planned, erected and tested a machine to make glazed wadding. Where British equipment treated one side first and started again to treat the other side, the company's great innovation was to complete the process with a continuous moving belt of material. It came from the garnett on the floor below, a flour size was applied between two rollers, and drying followed in a steam-heated oven. The material then turned over and the process was reversed to coat the second side. It was, in all, an exhilarating success—for some who worked on it, the highlight of their career. Customer firms liked the product and the firm's ingenuity impressed them greatly. Rapidly increasing needs in the motor industry, a booming clothing trade and buoyant demand for innerspring bedding soon taxed the new plant to the limit of capacity. The purchase of a second garnett for unglazed products in 1948 scarcely counter-balanced continuing rises in demand.

In the mattress section, meantime, policy initiatives had taken place. When spring steel was available once more, concentration turned again to innerspring, in which Arthur Ellis and Co. had been the New Zealand pioneers. Spring manufacture was still slow, and the mattresses at first were still expensive, despite successive technical improvements. Greater public acceptance and spending power however were already boosting demand. Although the South Island was nowhere near saturation, thoughts naturally turned to the North Island also. When negotiations with an Auckland company more or less fell through, comprehensive arrangements for manufacture and marketing were concluded with the Wellington firm of B. L. Hart and Co. Ltd. Norman Ellis went to their factory and helped set up spring plant the company had sold them. Hart's probably reaped a good harvest, but apparently over-reached the mutual agreement. Probably wisely, Arthur Ellis and Co. met the competition and kept their counsel. By the time B. L. Hart were absorbed into the Felt and Textile group some years later, other firms were also active in innerspring mattress construction.

Quite apart from the manufacturing process, there was one important innovation in mattress production. In 1954, the Sleepwell "Thermo" Innerspring Mattress with an electrically heated unit was launched on the market. This was the first mattress

of its type in New Zealand and was at once successful. Heater units were at first imported, but were soon made in the Dunedin factory under royalty arrangements. Predictably, improvements were devised by the engineering section. The arrangements went on happily until, in 1959, Government advised that no further remittances would be permitted to the royalty holders, Slumberland of England.

Roland Ellis, of course, abhorred State interference. This was tinder to his magazine, and Industries and Commerce soon felt the blast. "If we stop production of these units, which is evidently what you wish done, then we are left with about 12 months' supply of redundant materials—a great way to save sterling funds if that be the object. If we carry on to use up this material, we must either break our obligation to Messrs Slumberland, or buy unofficial exchange to honour it. We will not break our word." The principle, as he put it, was "much more far-reaching than mere electrically heated mattresses," involving the whole question of New Zealand use of overseas industrial research. "If we are compelled to relinquish the present arrangement, New Zealand will be the poorer. We will not have honourable access to research if, when we see something we think ideal for use in this country, we are not going to be permitted to use it except on a free and gratis basis. Nothing could be more humiliating."

Somewhat earlier, despite R. C. Burgess's persuasive pleadings, Government had dished out another nasty setback. During the long growth of the company, buildings had been added to piecemeal. After World War II, they covered a total floor space of one and three-quarter acres and were more or less adequate —at least with work rooms also established elsewhere. By 1954, however, expansion and diversification meant that the company was cramped for space, and efficiency was affected. "Production lines over the whole of our organisation," a submission claimed, "just do not exist, except to cross and crisscross in a hideous manner, simply because machines have had to be installed where space is available, irrespective of a flow chart. No production department has its bulk raw materials nearby and storage space has to be cribbed for the installation of new material."

The only solution was root and branch modernisation through a comprehensive rebuilding programme. Plans were prepared accordingly, with detailed explanations. Since the scheme was estimated to involve raising £140,000 in new money, approval had to be obtained from the Capital Issues Committee. The company's application, however, was rejected, and the 1955 Annual Report commented predictably—"it is surely ironical

that the economy of the country in present prosperous times is such that the resources of the company must be more or less frittered away on building extensions of a temporary nature which can never become part of the long-term plan."

Other vexing limitations on company action were sorely felt and cryptically recorded. The Annual Report became something of an event, Roland's yearly opportunity to turn his cutting edge on real or fancied bureaucratic blunders. "Some of the company's products are still subject to price control," he intoned in 1954, "even though the goods are in ample supply with manufacturers competing keenly. One very disturbing feature is the retaining of price control on end products and freeing from control the raw materials from which they are made. Exporters are paying much higher prices than local industries are able to pay under this peculiar set up." Inflation, credit squeezes and Government spending all caught a withering barrage, and even PAYE rated a passing broadside—"next year industry will be 'blessed' with PAYE. New Zealanders' reputation for independence again visits the chopping block." There was special scorn, too, for the administrative load officialdom imposed—"most citizens would be astounded at the enormous amount of time today diverted from the objects of each industry to search for and provide the information demanded of industry under the usual threats by Government departments."

It was quite good fun, utterly consistent, and so clearly came from an anxious heart. In an era when the causes of economic laissez faire and political liberalism are very nearly forgotten or abandoned, the message of Roland Ellis's 1959 Annual Report (his last as an executive director) still rings with a curiously relevant echo—"In the early days it was much simpler to expand. All one needed was the will and the money. Today . . . one would need the patience of Job to tie up all the loose ends involved. The cold hand of the State seems to grip every phase of our lives until the freedom of earlier years remains only in the memories of the generation about to pass on. Present day youth is begging the question of defending the prime concept that Parliament is elected to serve the people and not to enslave them to any Government and its empire-building departments."

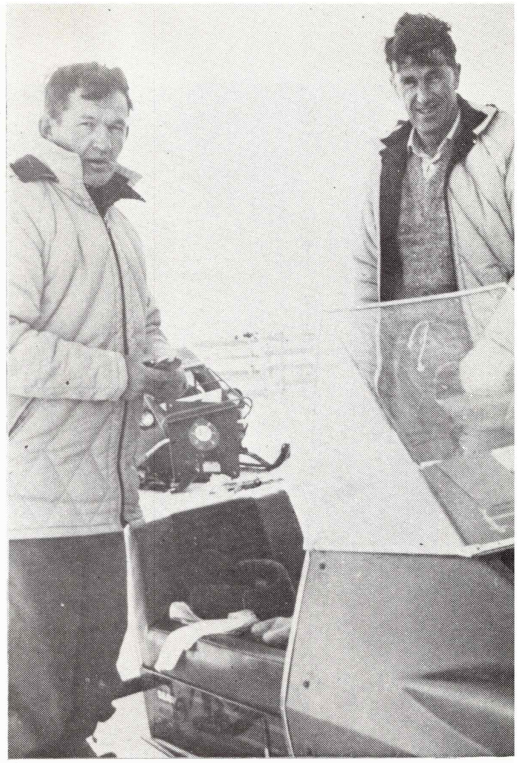
Amid heavy clouds of irritation, there was also a silver lining—unforeseen, dramatic, momentous in its implications. The lining was sewn in the modest factory in the Valley, and the glamour of one man carried its qualities to the world. Family mountaineering experience, it has been explained, turned attention to sleeping bag manufacture at a fairly early stage. By 1941

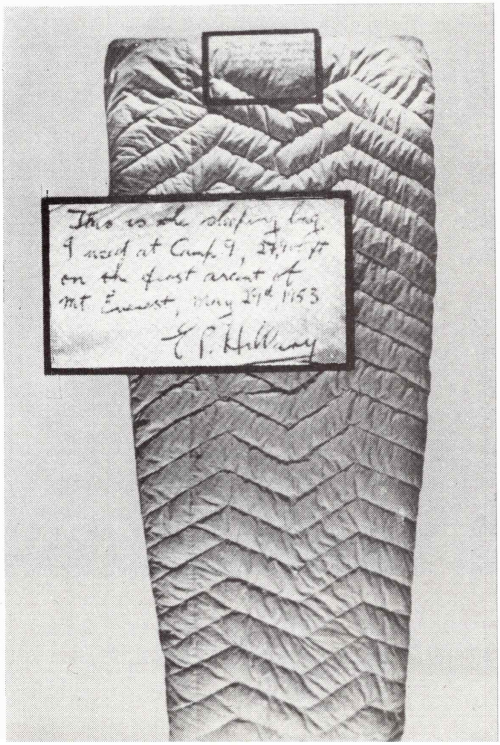
Arthur Ellis and Co.'s catalogue listed one alpine and three tramper bags. Although technical development went on steadily after the war, the company was heavily preoccupied with established lines and chronically up against it for experienced sewing operatives. Not much effort was made to push what was still a minor product, though "fairydown" sleeping bags were a solid favourite among buffs of the wide open spaces. Sleeping bags and down clothing supplied for the New Zealand Garwhal Expedition in 1951 proved entirely successful.

When Eric Shipton's Everest reconnaissance was planned, Harry Stevenson of Oamaru, as president of the New Zealand Alpine Club, requested the inclusion of two New Zealanders, and Roland Ellis was the quiet prime mover. It is trite history that Ed Hillary and George Lowe were selected for the successful assault on Everest. The company helped readily when asked to provide bags and down clothing—these were assembled and packed voluntarily by Roland Ellis and friends at Fuller's Theatre in High Street. "Fairy" down sleeping bags were used during the epic ascent, and Hillary was generous in tribute. "You'll be pleased to know that Tensing and I used your bags in Camp 9. It would be an exaggeration to say we were warm in this camp—or the South Col, as we had only a single bag in order to save weight, but I found a single bag was quite sufficient in Camp VII and below—wearing, of course, our down clothing. As a matter of interest, Tensing gave me the unsolicited testimonial that his New Zealand bags were the best he had ever used. I don't think there's much doubt that your bags are the best that can be obtained anywhere in the world."

In the eyes of that world, this was the ultimate accolade, catapulting an unknown New Zealand company toward undreamed of export markets.

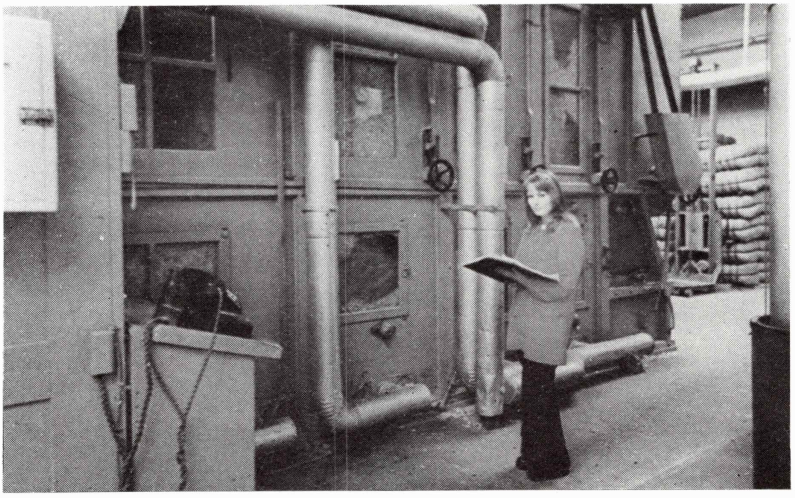
Murray Ellis
and Sir Edmund Hillary,
Antarctica, 1967.





"Fairydown" sleeping bag used by Sir Edmund Hillary on the first ascent of Mt Everest, 1953.

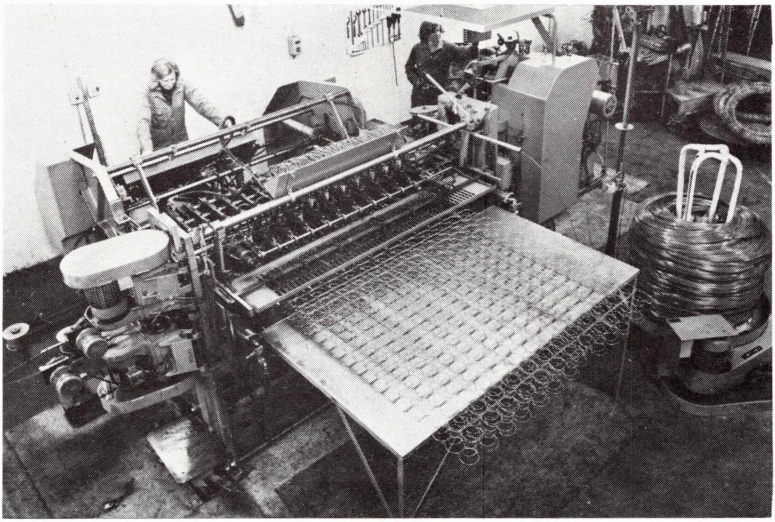
(Note written by Hillary is inset.)



Feather plant, Kaikorai Valley.

TECHNICAL PROGRESS—AND A SET BACK

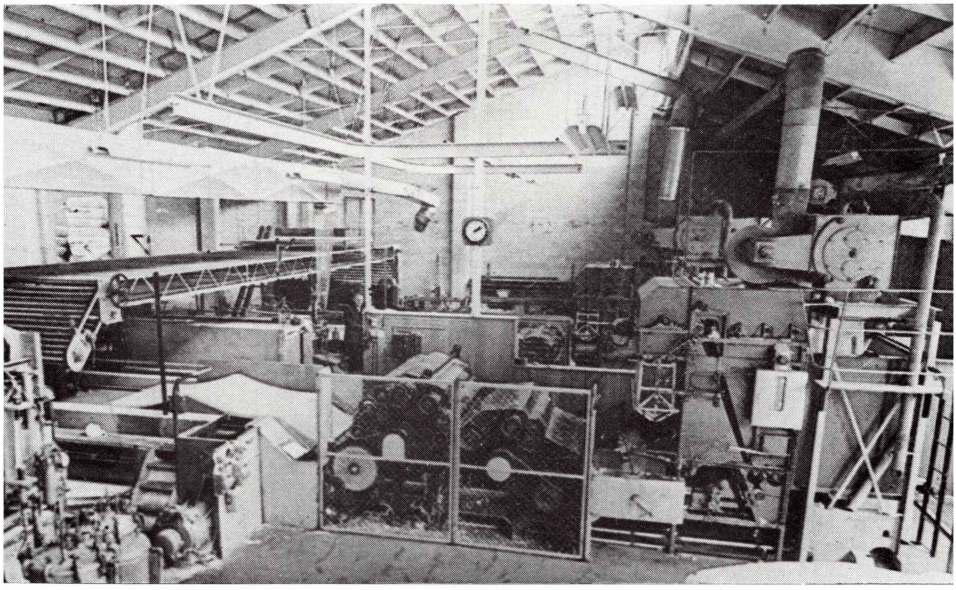
Fire in the glazed wadding plant, Kaikorai Valley, 1970 (Evening Star).



A technological wonder—fully automatic spring-making machine, Hornby.

THE LATEST ERA

Decisive innovation—bonded wadding plant, Kaikorai Valley.



Arthur Ellis, 1923-1964.

Graham Ellis.

Oliver Ellis.

Lindley Ellis, 1928-1974.

PROBING FOR THE JACKPOT

In enterprise as in nature, there is a time to sow and a time to reap. By the 1950s, Arthur Ellis and Co.'s long years of steady organic growth could be seen also as a preparation, offering, quite suddenly, unprecedented possibilities of harvest. On a base of firm and prudent management, creative talent had operated, with versatility and a strong technical emphasis. By luck as well as judgment, leading products had carried the main burden successively, each providing tooling-up requirements of expertise and capital for the next phase. Flock and kapok to mattress, fibre mattresses to innerspring; quilts to sleeping bags and ultimately to down blankets—there was a neat continuity, too logical almost for real life, splendid in its cumulative prospects.

Various constraints, in practice, curbed the possibility of growth. Amid the shifting perspectives of the post-war period, crippling shortages of labour and materials were not avoided, and could not be much evaded by innovation. Capital scarcity loomed heavily over development planning. The size of the business was also something of a deterrent; a small concern may well risk expansion within existing limits, but hazards all if it innovates boldly. Compromise, though it slows the pace, is some insurance for survival. Expansion, too, as Roland Ellis tartly reminded, was not now just a matter of "the money and the will". Public policy seemed to affect everything—materials and accommodation, prices and markets, capital formation and product diversification. Amid a complex of limiting factors, Government, the most vexatious, tended to become the scapegoat for them all. As management knew intuitively, the issue was fundamental. Insistently, opportunity knocked. In crucial areas, capacity could not be mobilised to follow up the invitation. Worst of all, the knock might come but once.

Among the management team, one man saw it all the most clearly, and was not among the older generation. The three brothers were middle-aged now, and settled in their views. A basic conservatism of temperament which had steadied their boldness now threatened to cramp the company's style. For the third time, this was the scenario for a tension between the generations. If the stakes were higher, the edge of conflict was blunted, for groups not individuals were involved in the process of decision. This kept the situation fluid, with possibilities of adjustment and mediation. None doubted, of course, that basic differences were there, but not all appreciated that speed was of the essence. One of the younger executives had that vision, and the courage to see it through. As new approaches had to be realised, Lindley Ellis forced the main breakthroughs.

Just in time, an altered framework made this possible. In 1949, Roland Ellis had contracted typhoid fever in India, and for long enough was seriously ill. This intimation of mortality had obvious long-term implications for business and financial control. Some shareholdings were divested to the younger family executives, and they were also admitted to meetings of the Board. Innerspring mattresses provided the first major item for decision among the expanded group.

Some time earlier, Lindley Ellis had been given partial control of marketing and promotion. Sleepwell mattresses, he soon concluded, were attractive in quality but priced, in consequence, rather above the mass market. If the innerspring mattress had a real future, it would have to be more than a luxury product. Cheaper (though satisfactory) models ought to be technically possible and should be developed. One further point was argued persistently. To penetrate wider markets, modern and aggressive promotion techniques should be adopted. These doctrines, understandably, were not wholly welcome, but the situation appeared urgent. An Englishman had set up a small factory making innerspring mattresses in Christchurch, and was believed to have declared that he would run Arthur Ellis and Co. off the market. B. L. Hart and Co.—a galling reflection this one —were also active in the South Island.

Both points were ultimately conceded and the results were staggering. Soft bedding declined and innerspring sales boomed. The company struggled to keep abreast of demand. A huge new spring-making room was erected, and the engineering section duplicated spring machinery as well as installing new imported equipment. Sales capacity was also affected by lack of storage. The Christchurch warehouse, in particular, could no longer stock the needs of the local market.

Lindley argued forcibly that a really big store must be purchased or built. Two years earlier, in fact, he and Graham had managed to get grudging permission to put up racks to store 100 mattresses in Dunedin. In the event, this reserve supply disappeared overnight when the rush began. Roland provided rather stubborn opposition on the whole issue, seeing matters as a traditionalist. Retailers, not manufacturers, had always done the stocking. The tide turned eventually, and elaborate plans were prepared for a big new building to house bedding in Dunedin. Lindley's thoughts moved faster, and he scrapped it before it got built.

The reasoning was simple. If a large store was needed, why not put machinery in it? If the Christchurch market was the most promising and the most sensitive, why not build a factory there? Finally everyone agreed, and in 1956 Maurice and

Norman went to Christchurch to look for properties. To allow for flock making, an area zoned for heavy industry had to be found. The choice fell on 5½ acres at Hornby, almost in open country, the site of a defunct sawmill where two substantial brick buildings could be incorporated in an excellent layout for a really modern bedding factory. Without delay, and at an ultimate cost of more than £100,000, the new establishment took shape.

Key staff were allocated. At 27 Graham Ellis became manager, and soon confirmed the wisdom of the choice. Quick in understanding and broad in knowledge, he soon had his ship at his fingertips and made himself universally respected. He had the essential quality of leadership, resilient in difficulties and keeping up everyone's spirits. Brian Ball, a young executive outside the family, was a hand-picked deputy whose contribution was considerable. When Graham returned to Dunedin, Brian provided continuity, and remained at Hornby till 1965. Derek Gunn became engineer, released from Maurice Ellis's group in Dunedin, and this too was a fortunate arrangement. The control group meshed well and performed well. Hornby was destined to become a success.

In various ways, Dunedin gave solid support. Spring machines were made in the Kaikorai Valley factory and taken up for installation by Derek Gunn. A garnett was dismantled and shifted to its new home. Ken Morris, Les Allan and Derek Gunn put it together, and it went like clockwork. R. C. Burgess mobilised the resources and set the limits, and his subsequent comment is revealing—"Hornby has taxed the present resources to the limit, especially when the requirements of working capital are taken into account." His advice and formulae for local management systems and integration with Dunedin were also invaluable. When it came to the opening, Roland Ellis provided his own characteristic touch. He drove up just in time, left Christchurch at midnight, and was back at his desk in Dunedin at 8 a.m. When Hornby began with 38 people in July 1957, a backlog of orders for 1,800 mattresses had built up, and competitors were cashing in on the shortage. The combined factories surged forward dramatically, and the problem was contained.

In the early days, for all that, it was not always plain sailing. When Brian Ball began, the only functional office was an outside shed. The first office junior celebrated her opening week in her overcoat, till kerosene heaters could be laid on. Recruiting looked easy, and had been a cogent reason for the choice of site. A big Government housing settlement nearby at Hei Hei provided a labour pool of married women for whom

most other employment was miles away in the city. Ultimately, the calculation that Arthur Ellis and Co. would interest them was handsomely confirmed. At the beginning, however, birds of passage tended to slip in—a few freezing workers, even, nearly managed a good billet for the off-season. Local angles had to be learned. Right across the road, a fish manure plant provided its own welcome—till shifted out as a nuisance. It ruined the factory environment while it lasted, and even broke up a children's Christmas party.

Expansion of capacity and extensions of its product range gave Hornby an increasingly important role in company strategies. In mattress production, development continued. In 1960, the spring making machinery was replaced by the latest automatic type—the first of its kind in Australasia. Larger office buildings and a spacious canteen were added. By 1970, innerspring mattress production for the South Island was all centralised on Hornby, where spring bases and headboards were also made. The year 1971 saw further substanial additions of factory accommodation, and spring machinery was again updated in 1973. Swiss equipment, the finest in the world, now culminated astonishing technological progress. The latest machine, which one man could operate, had an output 20 times as large as the total for 15 men when spring production first started. The customer gained, as well as the company.

Much earlier, Hornby had also been absorbed into the dramatic saga of the sleeping bag. To a degree, the ascent of Everest and other demand acceleration caught the company napping. Though production went up from 2,000 units in 1953 to 5,500 in 1955, this was barely sufficient for New Zealand orders. Problems of capital, labour and supply quite ruled out any systematic attack on international markets. Comparatively speaking, however, the demand for feathers and down was already enormous. Because of political troubles, dependence on unreliable Asian sources left the company vulnerable. Surveys of the potential of feather recovery in New Zealand were undertaken, and suggested a minimum throughput of 28 tons for economic working. By 1960, this seemed feasible. A second down plant was installed at Hornby to relieve pressure on Dunedin.

Rather earlier, in 1957, Murray Ellis had participated personally in a venture which further boosted down products. From 600 applicants he was selected to join Hillary's section of the British Trans Antarctic Expedition. The venture caught the public imagination. When clothing used and the original Mt Everest sleeping bag were displayed throughout New Zealand, more customers rolled in. So, by this time, did orders from a

bewildering variety of international mountaineering groups. Murray's quiet nerve and dependability, incidentally, as well as his engineering skills, secured further invitations for him. He accompanied Hillary to Nepal in 1963, and returned with him to the Antarctic in 1967.

Lindley Ellis, meantime, had been shaking up sleeping bags and the older members of the management team. Vigorous marketing, and insistence against Roland on sleeping bags to suit the common man's pocket, had pushed up sales to 9,000 units. There was just not enough sewing capacity in Dunedin to cope with this number. Hornby, however, could still find more good people from the Hei Hei settlement. The Christchurch factory began to sew sleeping bag cases. In the result, feathers (from the new Hornby plant) and sleeping bag cases were both being sent to Dunedin for finishing.

Graham Ellis, in his own company memoir, has effectively recalled the sequel. "This seemed illogical and long debates began in the Board Room. The final result was to build a full-scale sleeping bag factory at Hornby with an initial target of 30,000 units. The reality came true in 1961-62. From the beginning it was a real success due to the meticulous planning of Mr Burgess and Bob Craigie on the financial side and the very real effort by Murray on construction and engineering and Arthur and Lindley's effort to sell and compete on all markets. By 1973 the factory had already had substantial additions and was producing over 50,000 units. It would be true to say that the decade of the 60s was one of sleeping bags. They dominated the finance of the company and took up a great deal of the energy and talents within the company."

To centre sleeping bag manufacture on Hornby was an especially convenient rationalisation when a related innovation reached the production lines. Soon after World War II John Vollweiler of the feather plant had done a favour for a friend. Mrs Leary, who worked for the company, had a mother who was troubled by arthritis, and ordinary heavy blankets made her uncomfortable. In a clever adaptation of the traditional Continental duvet, Vollweiler filled an under and over quilt. The result, a lightweight down blanket, was an ideal solution. In 1975 Mrs Smith was 87 and her original down blanket was as good as ever.

When Graham Ellis worked with Northern Featherworks in Copenhagen during 1954, local use of duvets reminded him of John Vollweiler's adaptation and suggested that it might have commercial possibilities in New Zealand. Product development took place after his return and, as sleeping bag manufacture was shifted progressively to Hornby, the new line fitted in

very well with the company's activities. Since down blankets were less complex to produce than quilts or sleeping bags, substantial output was possible. Lorraine Lindon chose the materials, and her instinct for furnishing rather than dress designs proved sound. Much later, in 1975, the engineering section went to town on mechanisation—and a strip sewing process for one section of the work cut sewing time per unit from 40 minutes to 42 seconds. Alongside the flourishing development of down blankets, it may be added, four highly experienced machinists were working full-time on down jackets for alpine use—a complex prestige product without much profit margin.

Sleeping bags, down clothing and down blankets were often promoted together, but sleeping bags were the sure-fire seller. Partly because capacity was stretched, exports started fairly slowly. As Sales Director, Lindley was abroad five times in 10 years after 1961, but his work was mainly exploratory. There was no sustained overseas sales campaign and marketing organisation was limited. In the early 60s a link was created in the United Kingdom through the Edinburgh sports dealer Graham Tiso. In Australia, an independent marketing post was set up in 1972, encouraged by the phasing out of Australian customs duty. Opinion remained divided on long-term prospects, and the idea of an Australian production unit made no headway. Mail ordering was investigated for Canada, with a distribution point on the East Coast, but the project was not realised.

Direct overseas enquiries provided the bulk of export business, sometimes influenced by random factors. Fairydown bags were very favourably mentioned in the Whole Earth Catalogue —a sort of Bible of supplies for North American environmentalists. Exchange rates were then favourable to the North American customer, and business boomed. Subsequent revaluations in New Zealand's favour almost as markedly restricted progress. Generally, however, overseas orders were thoroughly encouraging—in the best years, up to 10 percent of total company turnover.

Most customers were grateful. "Your wonderful bags and wonderful prices," said one, "have saved my life . . . starting June 1, I will be living in Mother Earth's bosom." "Nothing gives me greater pleasure," another confessed, "than climbing all over a beautiful mountain leaving only footprints. Your sleeping bags give off the good vibrations that went into making them." Occasionally the company shared in a touch of tragedy. One North American customer ordered a second green Explorer for a matching set, but soon cancelled the order. "It seems that Jane and I are not a matching set ourselves."

Materials, like sales, were rather dependent on overseas factors, with an interesting spread of sources. Ripstop nylon and cambrics came from Britain, Germany and Japan. New Zealand down had to be supplemented; it came from Singapore and other sources where Northern Featherworks had a footing. Zips, ultimately, were supplied from Auckland—by a Japanese subsidiary related to ICI. As with other company lines, world-wide trading connections were essential. Various sleeping bag types were developed, with down-filled walled bags the top product. One operative took the sewing right through, with a sense of personal craftsmanship which would not be gained by a piecemeal process. Flat down bags and two main types of bag with synthetic filling completed the range. Bags for all seasons and bags for all pockets were well established in the catalogue.

Many New Zealand enterprises, in a good phrase, "used Dunedin's early prosperity as a beachhead from which to march northward". By the standards of most of them Arthur Ellis and Co. was a late developer. Finances, management resources and opportunities were all too limited to justify real national expansion at any time before World War II. Until then, and later, South Island outlets readily absorbed production growth. Inevitably, however, the expansive stimulus of the 1950s directed attention to North Island markets and national manufacture. Negotiations with the very solid and reputable Auckland firm of Tattersfield Ltd. revealed attractive complementary factors but potentially difficult gaps in management. In 1964, the Palmerston North based group of Howard Abbott Ltd. renewed an earlier offer to sell. This enterprise made mattresses and wool quilts and was in fact a real competitor in cheap quilts for children's beds. After close study, Arthur Ellis and Co. bought them out in 1965. For the whole of his career, Lindley had talked Auckland. This should serve the same purpose, centrally placed, spanning the other island.

Palmerston North, like Hornby, was planned for mattresses, headboards and spring bases. By a takeover costing some £60,000, Arthur Ellis and Co. had become the first national bedding company. The move would eliminate freights between islands and give faster delivery. Graham Ellis started matters off again but this time on an interim basis. He returned to Dunedin when Brian Ball was appointed as permanent manager. It proved in fact a very daunting billet. Unlike Hornby, Palmerston North did not begin virtually from scratch. Three factories were taken over and property arangements were complex. There were built-in diseconomies until production was consolidated to one factory in 1970. There were also unexpected setbacks. In 1967 the bulk store was burned to the ground—

a roaring inferno which melted the aluminium roof and destroyed all the contents except some plant. Another serious fire badly interrupted production in 1971. Palmerston North struggled, not the least because it demanded attention at the same time as important product innovation in bonded wadding was absorbing so much of the company's energy.

Marketing difficulties were one of the factors of concern. In hindsight, the timing of the move to the north was not ideal. For a decade or so after World War II there was rapid population growth with substantial development of secondary industry. Change burst up commercial patterns of the pre-war period, and tension between import and local manufacture created further flexibility. In an open market, newcomers could prosper. Gradually, however, new rigidities were established; production and distribution felt the dominance of the strongest competitors, imperfect competition emerged and the way began to close for intruders. By the time Arthur Ellis and Co. seriously tackled the North Island, two companies had 95 percent of the market, with very large output and resources, and favourable outlets were largely pre-empted. Large scale organisation and established connections gave formidable weapons, making it difficult to break in. By the nature of this situation, Brian Ball's team found themselves sandwiched between the product and the market.

The company, moreover, was fairly rigid in its standards and discipline. Some competitive techniques came as a surprise, and flexibility of reaction was lacking. Earlier experience was an insufficient apprenticeship—not so much for the men on the spot as for those in the Valley, who exercised fairly close control. It was, at the time, a stern schooling. North Island plans were curtailed and property purchased at Wiri has not yet become the base for another factory. Palmerston North, on the other hand, survived to contribute profitably, and the story is still unfinished.

One area of company endeavour languished under adverse conditions and finally expired. The soft-furnishing warehouses in Dunedin, Invercargill and Christchurch had survived depression and war and usually made a contribution to the common pool. Later, import licensing and local manufacture changed the outlook. As New Zealand industries became established, licences were stopped and all warehouses were given equal opportunity to stock the local product. Price cutting was an obvious sequel, adding to the limitation imposed by protection itself. In addition, manufacturers began to bypass wholesalers; Arthur Ellis and Co. even saw advantages in withdrawing their products from their own warehouses. Changes in public taste, finally,

meant stocking a much wider range to make soft-furnishing warehouses viable, and this cut into profitability. The writing, it seemed, was on the wall.

The logic was resisted successfully for some time. In 1955 Ainslie Lawn went overseas seeking new sources of supply, and some expansion took place in the range of merchandise. Roland Ellis watched developments closely, and his pithy letters to the managers were still encouraging and confident. In 1962-63, however, particularly severe import licensing crystallised the trend. The 1963 Report may be left to take up the story—"the total licences available to the three warehouses were barely sufficient for a turnover in excess of break-even point in one warehouse. As selling expenses continued to rise and could not be reduced to any appreciable extent, it became obvious that a drastic decision had to be made. The Board decided to close the Dunedin section in March 1963, and to use the warehouse licences to the best advantage at Christchurch for distribution throughout the South Island. Invercargill branch will continue to service factory goods and to sell from Christchurch warehouse stocks." In the event, Invercargill was also closed in 1967.

The last days of Christchurch, by contrast, were impressively spectacular. On 7 September 1967 a raging fire completely destroyed the warehouse there, blew outward and even took away a massive door. "Flaming debris and miniature fireballs," it was reported, "showered over Manchester, High and Cashel Streets and belched great clouds of acrid smoke to the north east." Fourteen fire engines and a crowd estimated at more than 1,000 turned up for the occasion. Although all stock and almost all fittings were destroyed, it was not quite the end. Christchurch closed officially in 1971. Earlier adjustments, it should be noted, had done something to maintain a company presence in the commercial world. In 1962 Mr Frank Cattell, the company's North Island agent for 30 years, expressed the desire to withdraw. He had served the company truly and well, and could be judged one of the most popular manufacturers' agents in the furnishing trade. Company sales offices were then started at Wellington and Auckland, and the Cattell connection was happily preserved when Dick Cattell became first Wellington and then Auckland manager.

Reserves were very much the exception as Arthur Ellis and Co. strained forward in these years, pressing against constraints of capital, management and labour. One further move was the most dramatic of all. In a 10-year period it absorbed $500,000, decisively shifted the direction of growth, and eroded previous continuities of development. With the decision to

exploit new technologies in synthetic fibres, evolution became revolution. The impact shattered the traditional structure of the company.

For many years, production of felts had been a significant activity, boosted enormously by the glazed wadding plant after 1946. In that field, Arthur Ellis and Co. held a leading market position. By the late 1950s, however, big developments began to appear on the world scene. Certain new synthetic fibres could be sprayed with chemicals which bonded them. When heated through an oven they stuck together to form an easily handled sheet. Murray Ellis was well aware of the possibilities of this technology and the implied threat to the firm. Competitors were already working on bonded materials and the market for glazed wadding was certain to be affected. Maurice Ellis, too, had recognised the prospects of bonding with resins, and converted the glazed wadding machine for certain purposes. That, however, was a line of limited development. Under Murray's guidance, experiment took place and some fairly crude material was produced. It was however a highly technical field; as against large concerns, the company seemed at a disadvantage in respect of expertise and research resources.

During a business visit to Australia by Murray and Graham Ellis in 1960, the decisive break came. Murray had the idea of asking Oliver Ellis to join the firm. The elder son of Eric Ellis, the brother in the previous generation who had stayed outside the business as an engineer, Oliver had qualified as a chemical engineer and was working for ICI in Melbourne. He joined the firm in 1962, at once began research, and improvised further pilot plant on the foundation of Murray's earlier effort. It was a secretive game, in which the company had to learn many lessons for itself. Technical complexity and cost would clearly be beyond anything the company had attempted. Competitors were known to be ahead.

One preliminary decision concerned the initial priorities. Over the whole field of bonding and resins, there were two attractive lines of development. Saturated types offered a large and enticing field, but processes would be very sophisticated and expensive. Spray bonding had rather less scope but was more within reach. Uses like upholstery and quilting wadding, partly in replacement of glazed felts, seemed to ensure a good market. Bonded waddings became the first target.

Trial schemes at the factory involved spray bonding with a single garnett and oven. From the beginning, Oliver aimed at versatility. For not much more cost, extra features were progressively built in and a range of technical facilities. Product range and quality ultimately benefited. Alex Neason and

Norman McLean spent much time on practical engineering problems. Murray and Maurice Ellis took a close professional interest, and the whole management team lived in an atmosphere of expectancy.

Results, however, could not come overnight. After Arthur Ellis (now general manager) visited North America in 1962, his report concluded that non-woven fabrics were indeed directly relevant to the company's progress. Murray and Oliver then went to the United States to glean more knowledge. On their return, the Board approved construction of an interim high-loft plant, and consultants were retained to evaluate the economies and marketing of high-loft and saturated non-wovens in New Zealand. In 1964, Industries and Commerce approved the proposal to manufacture bonded waddings, and agreed to give import licences for the necessary plant. Capital expenditure accelerated.

The new plant was commissioned in 1966, and operated successfully from the start. There was no question, of course, of standing still. Oliver made a further trip abroad in 1967 to see new developments which might be incorporated. Plant was expanded and production lines were improved in several phases. Products soon won wide acceptance. As the 1970 Annual Report outlined "to keep abreast with increasing demand for bonded products, a second shift was instituted in January and the increased production has contributed to the satisfactory trading results. Our investment in this field has been fully justified."

Organisation and future development of the process figured very prominently in management discussions. In 1970 a new building was planned and erected at a cost of $40,000 to house and reorganise productive capacity. The question of glazed waddings was considered. In April 1970 the directors decided that, since better products could be made by spray bonding, the other plant should be phased out. A production line incorporating the glazed wadding garnett and an extra spray station would give improved loading and greater flexibility to the existing bonded line. The new building would also allow centralised final processing and storage of finished products adjacent to the production line. In October, before all this was implemented, the company had a nasty scare when fire broke out in the sizing room of the glazed wadding plant and destroyed the oven and building. The garnett, fortunately, was saved and linked with the other plant.

By 1971, therefore, new lines of development had been tested and a new balance of production was established. The company, clearly, was travelling along three major streams—bedding, down products plus associated developments, and syn-

thetic fibres. After 15 years of strenuous, exciting growth, amid the mounting strains of the present and with an eye to crucial decisions for the future, it was a time for reassessment. In July 1971, a directors' minute crisply charted the way ahead—

"Agreed

1. the bedding industry is static and offers no prospect of substantial profits. Quilts face a limited future in the domestic market. Consequently all efforts should be directed to—

   (a) maintaining and increasing the profitable catalogues;

   (b) expanding export markets;

   (c) concentration on the development of bonded wadding."

Though Palmerston North would be retained, the company had ceased to think in terms of Lindley's earlier vision of a major transfer of manufacturing and administration to the North Island. Instead, new technology was the first priority. In confirmation of that emphasis, Murray and Oliver travelled to North America and Europe again in 1972. Heavy saturated bonded areas, and possibly the lightweight saturated market, were clearly designated as possible targets. By 1974, synthetic carpeting was an impressive sequel.

During the crowded years after 1955, expansion, product development and diversification held out unprecedented prospects. Constraints upon growth, however, imposed real difficulties of decision in respect of priorities and timing. If, in one field, immediate advantage was maximised, the required diversion of resources could bar entry to an alternative opening at the optimum time. The rewards of short-term expansion had to be balanced against needs of long-term development. Where, as between various products and markets, did the significant opportunities really lie? On the whole, the company steered its way skilfully through dilemmas of choice. If some inviting possibilities were not realised—especially perhaps in the North Island and overseas markets—that result was probably inherent in the limitations. Some of those limitations, however, were inherent in the structure of the enterprise, which now matched inadequately the dynamic of progress.

END AND BEGINNING

Through many decades of growth, Arthur Ellis and Co. had been firmly rooted in the Valley, closely identified with a community and city. Sharing in the economic and social conditions of immediate customers, management gained a practical intuition for market motives and possibilities, and capitalised on that sensitivity with a prudent boldness. By the 1960s, the economics of production and distribution dictated an extension of the manufacturing base to Christchurch and the North Island, and export opportunities involved a further broadening of horizons. In some company thinking, Dunedin now seemed almost a liability as the centre of operations, impeding penetration of ambitious and enticing outlets. In other respects, however, the Valley was still a favourable anchorage. There the firm grew, not in a vacuum as an organisational transplant, but by a perceptive relationship of understanding and acceptance in a known human setting.

Time was bringing changes to that setting. In the years immediately after World War II, Dunedin still retained some of the comfortable gloss—and the quiet assumptions of superiority—from heady prosperity nearly a century before. As a national force, it still had hope. Insistently, however, people, money and institutions shifted north, knocking the heart and the prospects out of the auld city. Even the university lost its monopolies, its sense of dominance and its assurance as a national focus. Old vitality drained away, not to be replaced by new, and ambitions of revival were revealed as a fading illusion. During the buoyant years from 1945, in a way which even brash northern materialists rather regretted, Dunedin missed out.

Local people, for all that, were being drawn into new national life styles. In a static economic setting, the mark of the depression—in caution and the search for security—remained stronger than in developing regions of greater opportunity, employment mobility and younger population. But Dunedin, like the rest of the country, steadily loosened up and got the wants. Home ownership, cars, sophisticated domestic appliances, TV, holiday cribs (not very distinguishable from the baches of the north)—a whole spectrum of new essentials swept away assumptions of scarcity and traditions of parsimony, and propelled a new generation into a brave new era of debt and delight.

For established enterprises like Arthur Ellis and Co. habits of conspicuous consumption offered opportunities but also a warning, even on the home ground. Increasingly, the market was that of a national monoculture. Local reputation and loyalties were unlikely to prevail indefinitely against new techniques

of saturation marketing and new mass expectations. The very variety of consumer possibilities could also work against basic products, especially in the quality range. For the average household, second-rate bedding might seem a fair price for first-rate TV. Changing priorities and wider choice also tended to work against goods with relatively inelastic demand. In the 50s and 60s, this conclusion was the basis of Arthur Ellis and Co.'s feverish development toward product popularisation and the search for diversified lines.

Around the factory in the Valley, there was a kindling of fresh activity. Throughout his life, the older Arthur Ellis had regretted the slow pace of local growth, and speculated on its causes. In the 1930s and 1940s there was little change. The cable car power houses still started up at 6 a.m. and the tram bells rang out cheerfully at regular intervals. The Roslyn Woollen Mills and Arthur Ellis and Co. were the only large businesses, and small-scale enterprises were few. Housing scattered and straggled through areas long settled. Modest, dull, fairly old cottages and bungalows were the norm, with very little new growth. There were no pubs, and more churches than shops. Both struggled for more customers, but not with much success.

In four short years, dramatic changes in communication links broke in upon the isolation of the Valley and stirred it from stagnation into the main stream of city life. The process began with the momentous decision that the three cable tramways, Kaikorai, Roslyn and Mornington, which belonged by this time to the City Corporation, would be closed down. It was claimed, and probably rightly, that all their equipment was run down and that the cost of renewing it would be uneconomic. The first to go was the Kaikorai line, which was replaced by a four-lane highway with an overbridge at Highgate. This meant the removal of the Salvation Army Hall in Roslyn and widening of the road all the way down to the Kaikorai Valley turnoff. A generation later, there are obvious regrets for a picturesque amenity with an old-world savour—and what might have been a wonderful tourist draw. The practical consequences, however, were startling. With the completion of the scheme, company trucks from Arthur Ellis and Co. could get to the Octagon in four minutes. When, in turn, the Roslyn line was closed down, bus services from Rattray Street and the Octagon came right over into the Valley.

The new highway over the hill also opened up a short-cut from Burnside, Green Island and Mosgiel to the city. In the era of the family car and increasing short-haul road transport, this was very significant. The narrow pot-holed country road from

Burnside to the Valley was quite inadequate for its new role. In 1962 it was reconstituted as a full four-lane highway from Burnside to the bottom of Stone Street. Meantime, the greater accessibility of Kaikorai Valley was leading to rapid residential development. A small suburb called Bradford with its own school sprang up around the old Mellor house. More homes were built in Glenelg Street, and another suburb called Kenmure developed around the bottom of Kenmure Road and Barr Street. New housing began to stretch into the heights of Brockville. Industry moved in likewise, including some quite substantial enterprises. Warehousing and distribution also made an appearance alongside the new artery. Though the basic character of the Valley remained, it all amounted to quite a transformation.

For Arthur Ellis and Co. these developments were mainly favourable. In the post-war years, problems over female labour had seriously frustrated company growth. Young girls, so easily recruited in the hungry 30s, were not attracted in any numbers and were always inclined to move on. Married women were a better prospect, but were not at first available in sufficient numbers. Housing expansion in the Valley changed the picture. Much greater numbers of mature women were looking for local jobs, and the factory sewing room benefited.

This windfall also had disadvantages. For a long time, the company had been well known in the Valley and had known most of the people. Employment relations had been close and personal, with an almost feudal touch. In 1973, six retiring employees had 180 years of service between them—and some had had other family members with the firm. Now however, the Valley was larger, much less close-knit socially, and so was the company. Much more than in the past, new workers and management were an unknown quantity to each other. This meant the loss of the old intimacy, and gave rise to unexpected strains. Management relations, on the other hand, were forced to become institutionalised, modern in attitudes and methods, much more appropriate to contemporary conditions.

Company management, no less than the work force in the Valley, was exposed to the pressures of changing times. Even in the generation of Roland Ellis, group control had to some extent supplanted the single will of the entrepreneuur. Further growth in the sheer volume of business had accelerated that transition, as had the partial succession of a younger generation. That generation, also, was one of cousins as well as brothers, and more people were involved. With family links attenuated, relations within management, like those with the work force, began to take on more orthodox institutional features. In the mid-60s, on the other hand, all but one of the top executive staff were still

Ellises. Continuing family dominance happened to confer exceptional individual qualities and also ensured admirable collective strength. It probably delayed, however, the adoption of a streamlined management structure. Hard necessity rather than chance or choice would complete that evolution.

From the time when Arthur, Murray, Lindley and Graham Ellis were admitted to Board meetings in 1955, fresh ideas had flowed through into company policy. The impact on manufacturing and marketing perspectives, and on product diversification, was soon considerable. Almost at once, the very momentum of new developments the younger generation sparked off created a larger role for themselves. Greater company activity imposed a larger management base. It was also important that the three brothers who had carried the firm for more than 30 years were now, necessarily, slackening in will and enthusiasm, and rather too fixed in attitudes for the realities of a different era. As Ephraim Ellis had made way for Arthur—grudgingly, it would appear—and Arthur had withdrawn generously for Roland and Norman, so now the three brothers began to step aside. They did so gradually, and in the main with a good grace.

The new men, in consequence, inherited existing roles together with fresh responsibilities of growth. In 1959, Roland Ellis retired from active participation in the firm (though he continued as chairman until his death in 1965). The opportunity was taken to adapt the executive structure in a manner which deferred to the older group formally but in reality transferred power. Norman and Maurice Ellis remained as senior directors, but Arthur was appointed general manager, and the day-to-day running of the firm centred on him. Sectional tasks were clearly designated, with Graham as production manager, Lindley as sales manager and Murray as assistant engineer. Arthur and these three now became full members of the Board. Oliver Ellis, it will be remembered, joined the firm in 1961. He was admitted to the Board without delay and at once absorbed into the new management team.

In the corridors of company power, the time which followed was happy and fruitful. The older family group—plus R. C. Burgess and Bob Craigie on the financial side—still filtered proposals and acted as a steadying influence. Norman Ellis, however, retired from executive work in 1962 and Maurice in 1966, having reached at those times the retirement age their father had set before them. After Roland's death in 1965, moreover, Maurice became chairman of the company. His quiet, reasonable approach encouraged more latitude than Roland's forceful style and formidable reputation. The new team, in short, soon had a

fairly free hand, and matters broke for them just when company prospects were particularly exciting. These were exhilarating years—the time of the golden touch.

The genial leadership of Arthur Ellis contributed very significantly to meshing the group together and stimulating its best efforts. Energetic and extroverted, Arthur was a natural captain of men. Universally liked, he preferred to be surrounded by others, and applied himself to his recreations and his large family with a dedicated enthusiasm which recalled Roland. Relating excellently to people, he yet had an extra quality which others recognised. When he joined the Belleknowes Golf Club as a rabbit, he found himself president almost overnight. At a time of transition, Arthur's role in the company was at times delicate, poised between old ways and new. Good natured but firm, a man of ideas, he could put unpalatable points persuasively and without offence. On occasions when younger family executives felt they were not being treated fairly or seriously, Arthur was an attentive listener. He would cheerfully take up a cause he accepted, whatever the consequences. Not personally an innovator, without theoretical background in technology, management or finance, Arthur Ellis was yet a fully credible leader, holding management together and splendid in a co-ordinating role.

Tragedy struck just as the new team was flexing its muscles. In 1964, Arthur Ellis was killed in a motor accident. No preparations had been made for a succession he had so recently accepted himself. Though there was no obvious candidate, the company did not falter. Straight from a specialised background of engineering management and product development, Murray Ellis was asked to take over as general manager. It was a mighty change, no less daunting for the fact that the ranks closed to help him, and that comparative veterans like Maurice Ellis and Bob Craigie were ready with counsel at his elbow.

Thrust into leadership, Murray Ellis had a distinctive record which implied that he would measure up to the challenge. His war service and three expeditions with Sir Edmund Hillary have already been recalled. His rugged features and quiet assurance suggested, indeed. what unusual opportunities had taught him—resilience and persistence in difficulties. Less immediately evident were the qualities of a serious and versatile mind, a sense of vision and capacity for hard work. Professional training and experience had given him discipline and a bent for analysis. Without flamboyance, he also had the family flair for relationships.

Among Murray's associates, in 1964, these qualities were already well known and depended on. His change from technique to management seemed in that light a natural evolution. To a solid foundation, he added business knowledge and acumen, and moved fairly easily from a world of hard calculation to intangibles of motivation and conduct. As the technical complexity of the company's operations grew, moreover, management decision was linked more and more closely with specialist developments and data Murray Ellis was particularly well fitted to handle.

Through events and his own planning, it was soon borne in upon the new general manager that organisational necessities were outstripping the capabilities of the family management team. In 1963, a research and development department had been set up to undertake responsibility for long-term projects. This meant, mainly, synthetic fibres, tied down Oliver and, until his retirement, heavily involved Maurice. With Lindley fully absorbed in sales and promotion, Graham carried a heavy load on the production side. New establishments at Hornby and Palmerston North added to growing responsibilities elsewhere. Even with four younger members still very active in the firm, Arthur Ellis and Co. were running out of family.

If, moreover, family executives had entered the company by choice, their qualifications (except for Oliver's) had been rather a matter of chance. In an era of tight personal control without exacting demands upon special expertise, they had learned to fit in. In fact, the company had been lucky in their curiously complementary and appropriate aptitudes. Already, however, there were notable gaps (especially in financial management), and the position could not be left at hazard for the future. As R. C. Burgess put the matter "the development and control of the company's affairs from the personal kind to the delegated kind has been very sound and encouraging. With the passing of the years and the recent expansion, the change must be accelerated. Further changes in activity will mean changes in the plan of management." Tagged specialist qualifications and business training, he concluded, would have to be preferred to family connection.

Long since, of course, the management base had broadened to the point where outside men held important posts. An exceptional need had placed an exceptional man, Bob Craigie, in the position of company secretary by 1939. Warehouse managers and factory supervisors had considerable latitude and responsibility. None of these however, operated in the policy sphere. In that respect, until the 1960s, even Bob Craigie's position was equivocal. Major responsibility, and likewise accountability, had not really been conceded. By the fourth generation

there was also, in principle, some danger of dynastic sclerosis. How far would an Ellis syndrome impede structural adjustment and prevent breakthroughs by up-and-coming men capable of maintaining the corporate dynamic? It was, by the mid-60s, a very relevant question.

As three generations bowed to the passage of time, the fourth made concessions to organisational necessity. Bright young and not-so-young men had to be attracted, with a ceiling apt to their potential. An important directors' minute of 1969 confirmed the intention. For continuity of control, "assistants were to be brought in gradually with the purpose of eventually replacing the present management team, the said replacements to be made at the discretion of the general manager except for that of the general manager himself". Further Ellises would not be excluded, but would make their way in competition. Company, not family, had to come first. Prodded by Burgess, thrown a little off balance by Arthur's untimely death, losing the executive services of Roland, Norman and Maurice in rapid succession, and then the legendary figure of Roland altogether, urgently pressed by demands of growth, the management team saw well enough that it was time to come in from the cold. Arthur Ellis and Co. was ending its feudal age, that of careers for talents was beginning, and nothing would be quite the same again. More than anything else the appointment of Bob Craigie as a director in 1970 was the symbol of change. The way was now open for all staff to both top executive level and Board Room.

Younger career executives, in fact, were already closing in toward the top management bracket. Derek Gunn had started as an assistant engineer with Maurice Ellis, and soon showed an outstanding capacity for practical innovation. He set up Hornby as engineer and later came back as company chief engineer to Dunedin. Brian Ball had also been some time with the firm, having slipped in young from a Barr, Burgess and Stewart audit. Moving from office manager at Hornby to factory manager at Palmerston North, he returned to key posts in Dunedin, and succeeded Graham Ellis as production manager in 1974.

Others, especially on the production side, had varied and less formal backgrounds. Alex Gourlay had colourful beginnings, worked out a wanderlust and many sporting enthusiasms, settled with Reid and Gray as production planner, moved to Arthur Ellis and Co. and in time took over the Hornby factory. Until about 1960, Dick Brooks managed THC hotels. Changing to the company, he worked through to manage the Dunedin factory. Michael Prain worked for Bechtel at Manapouri, especially prominent as a union delegate. At Arthur Ellis's Palmerston

North factory, which he came to manage, that experience was valuable. All these managers, in short, were picked up—and hand picked—in mid-career. All had wide experience of handling people.

In one later case, a similar personal recruitment indicated clearly that there was room at the top. Keith Tyrrell had been import division manager for the National Mortgage, a very large supplier of textiles, fibres and steel wire to the Ellis factories. In that capacity and later as purchasing manager, he had travelled extensively to India, Hong Kong, Singapore and Japan. This experience, his business capacity and his personal qualities made him especially welcome to Arthur Ellis and Co. when he joined in 1973. Two years later, he took over Murray Ellis's job as general manager.

Evolution on the sales side followed a rather different pattern. One key figure, Owen Tallentire, joined by a familiar process—suggested by Lindley Ellis on the basis of advertising connections. He rose to be advertising manager in 1974. Keith Hawkins at Palmerston North and Ken Taylor at Dunedin, however, had begun with the firm as boys, and Noel Arthur at Christchurch was a veteran from hard days of travelling in the 30s. With Dick Cattell in Auckland, a valued company connection had moved into the second generation. In Bob Craigie's special parish, new staff were invited in for special expertise. Connie Spiers joined his team in 1948 to add her accounting knowledge and wide commercial experience, Lindsay Dempster when expansion in the 60s dictated more accounting responsibilities, and Trevor Sew Hoy in 1975 to take over the management accounting side and assist conversion to computers. No one pattern, then, had emerged for filling significant personnel gaps. This in itself was a healthy sign of flexibility.

Altered dispositions among the family executives made some of these positions possible. In mid-1974 Lindley—so lively, effervescent and boyish—was tragically stricken, and died suddenly at only 46. His vision and persistence in a really critical phase have already been recalled, and that contribution was well appreciated in his lifetime. The company's loss, for all that, was probably greater than they knew. Graham, from 1971, was affected by illness and had to curtail his work load. In a new pattern, in fact, the senior family executives stepped sideways, Oliver to technical director and Murray to managing director in 1975. This rationalisation optimised management possibilities, completed the adoption of advanced organisational methods and opened real opportunities for the "outside" men. The decisions and intentions of the new approach were now structurally entrenched.

The internal dynamic which had exploded earlier patterns of management was also bursting through the traditional capital structure and financing of the company. In the 1920s and 1930s it had all been—comparatively—so simple. Family holdings were gifted from one generation to the next, while capital requirements remained manageable and were generated internally or obtained by short-term accommodation. Shareholders worked in the business and tightened their belts to make expansion possible. Even by the 1950s, it has been recalled, that straightforward situation had gone. Non-working family members had large shareholdings. High death duties raised real problems for retention of control within the family. Heavy capital demands imposed increasing embarrassment upon family shareholders. These pressures and changed legislation denied the possibility of deeding a substantial interest from one generation to the next. When, in 1964, Arthur Ellis and Co. became an unlisted public company, the immediate practical consequences were not significant. The theme was however clear; marketability of shares was becoming essential, and the implication was outside participation.

Specific experience in the 1960s underlined this logic. From 1956 to the completion of Hornby in 1961, £155,000 was provided from internal resources. As Burgess warned, this effort had taxed family and company resources to the hilt, ultimately pressing upon working capital. Bonded wadding development in the mid-60s was also financed largely, in a buoyant period, from internal resources, but this large swallow also involved mortgage finance. Working shareholders were leaving the maximum possible in the business, and none were in a position to find money if substantial new commitments were envisaged. The writing, as Burgess indicated, was on the wall, "the change to a full listed public company may likely become necessary sooner because of development needs than because of sales of ordinary shares to best advantage by members of the family".

Like those of management, in short, capital needs were running out of family. Success had created its own Frankenstein; no longer could company growth be controlled and contained within the traditional circle. Inescapable momentum demanded fresh capital, some of which quite new sources would have to supply. A static company situation, had it been practicable, would hardly have been more satisfactory. Arthur's death in 1964, Roland's in 1965 and Norman's in 1970 emphasised the family vulnerability in a cumulative way. Other situations, fortunately contingent only, had driven home the same message. When Murray went to the Antarctic and Himalayas a structure of life insurance and trusts was set up designed to provide a purchaser for sufficient of his shares to pay death duties in the

event that anything went wrong. Devices, however, could only mitigate the fundamental problem. In the financial sense, the company had outgrown the founders.

Because of its implications, this conclusion was accepted with some reluctance. Matters came to a head however in 1972, when the pending retirement of Maurice Ellis as chairman of the Board led to protracted discussions on financial organisation and on the marketability of shares. A year or two earlier, R. C. Burgess had defined the problem for decision—"if the company were listed, the privacy of the family business would become very limited and together with control would remain only so long as shareholders were satisfied. In short, the company's affairs would become more and more separated from the private interests of the family." The question was not whether the family management would consent to come out from the cloisters, but how soon they would do so.

Necessity, in the event, was the catalyst for a smooth and fairly happy transition. A first and wise step was taken when, following Maurice Ellis's retirement, Mr H. S. McNeill was invited to join the Board as chairman—apart from Bob Craigie, the only non-family member. This was obvious notice of intention to open up the company. For the firm and in terms of public confidence, Harry McNeill was a very good choice—a shrewd, robust, homespun engineer who had made his own way professionally and as an executive, and had a very solid reputation for rehabilitating difficult company situations. Unpretentious and practical, he was rather after the Ellis mould, and meshed in ideally with existing members of the Board.

Major reconstruction was the next step. Early in 1973 a scheme was prepared to meet the company's objectives and go to the public on fair and encouraging terms. Freehold land and buildings of Arthur Ellis and Co. were first sold to Rodley Investments Ltd., a private company made up of former ordinary shareholders. For the time of listed public operation, this anticipated any threat of corporate raiding and also protected family assets which had been built up more or less independently of the firm's ordinary activities. Properties required for the manufacturing group were next leased back under long-term rentals based on Government valuations.

In the next stage, all of the shares in Arthur Ellis and Co. Ltd. (capital had increased by successive movements to £409,000 in 1965) were acquired by a new holding company, Arthur Ellis Holdings Ltd. This enterprise had an authorised capital of $2,000,000 of which rather more than $1,000,000 was already issued in ordinary shares of $1 each. Through a placement of 500,000 shares total issued capital would be brought to

$1,600,000. Arthur Ellis and Co. Ltd. would continue in being as the operating company for a business which was now in its ninety-fifth year. As the prospectus stated, "a major objective of the placement is to achieve a sufficient spread of shares in Arthur Ellis Holdings Ltd. to qualify for listing on the Stock Exchange". This objective was achieved without difficulty. By the 1973 placement, the company gained 1,200 additional shareholders. The enterprise and its future had truly entered into the public arena.

In 1975 an era ended with the retirement of Maurice Ellis, on reaching the mandatory age, as a Director of the firm. The remarkable fact about this retirement was that it was actually the fifth retirement he had made in his years with Arthur Ellis and Co. Ltd. He had retired in 1962, but returned to work when Murray went to Nepal in 1963. He returned again after the death of Arthur in 1964. His subsequent retirements were as Chairman of the Board in 1972 and as a Director in 1975.

The economic upheavals of 1974 and 1975 did not leave the firm untouched. Along with these difficulties came new opportunities to sell down products in Australia. To exploit this outlet fully and to take advantage of new developments in New Zealand, a changed capital structure became necessary. In April 1976 the nominal capital of Arthur Ellis Holdings was increased to $3,000,000, and Rodley Investments Ltd. was absorbed back into the main structure.

The increasing complexity of the business was also emphasised in early 1976 with the installation of the company's first full computer. This was a far cry from early days in 1931, when the purchase of the first adding machine caused disagreement between Roland and Arthur. The latter deplored the fact that this wasteful outlay would cause the loss of a simple basic skill—adding.

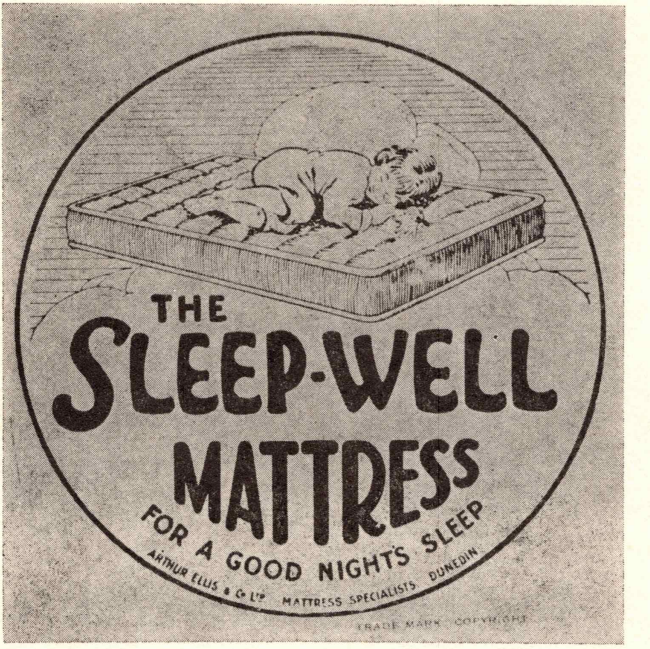
These changes, like those in management, had been long contemplated and carefully prepared. If top executives have some consciousness of greater responsibility and an awareness of scrutiny, standards were already keen and attitudes have not perceptibly altered. The company has continued to react, of course, to the momentum of growth, but it is that growth which has determined new techniques and patterns of activity rather than the simple facts of a new status. One side effect, possibly, has been a greater sense of confidence, even of liberation. Ready access to funds should enable opportunities to be grasped and exploited without the strains and compromises of the preceding two decades. Family executives need no longer suffer from confusion of objectives because of several contra-

dictory relationships toward the firm; subjective thinking on policy is much less likely. For career executives, likewise, the balance of listing is mainly on the profit side, placing loyalties on a new foundation, confirming personal prospects and encouraging morale.

Some question marks and some regrets also arise. Size and public status both suggest more delegation—and that means more remoteness. Tight family management did confer advantages in ready communication, flexibility and rapid decisions. Restricted size and close personal relationships also drew activity together, with no hard and fast barriers between office, drawing board and factory floor. Design problem, machinery problem, operative problem—matters could so easily be looked at all of a piece. Whatever its necessity, the structured situation of a larger enterprise may mean less of the informal cross-fertilisation —more particularly in technical fields—on which countless company breakthroughs were based

Scale, on the other hand, brings compensating advantages. There is no real indication that Arthur Ellis and Co. is growing beyond any theoretical optimum size. From the 1950s, indeed, rapid growth was probably a condition of survival in circumstances of rigorous and expanding competition from concerns of greater weight. That the company flourished is a reassuring reminder that the industrial race is not necessarily to the giants. If in fact the danger of eclipse by enterprises with advantages of scale and market leverage once existed, a point of competitive viability of size has probably now been reached. As resources, expertise and volume of production have increased, vulnerability has diminished and opportunities have grown.

There is some uncertainty, also, as to the Ellis connection. The family which brought the company through four generations of unusual achievement still has a large role in management and a substantial total shareholding. In a different framework, it is another question whether a fifth generation will look to the firm or turn the Ellis aptitudes and versatility elsewhere. Some loosening of family control was both inescapable and an advantage; total withdrawal from an active role could be regrettable in practice as well as tradition. As the centenary of the company approaches, the Ellis record stands out in the strength, continuity and community identification it gave to their enterprise. Their stubborn Yorkshire will was the hard cement with which their house was built. Labouring for themselves, they also created for a new nation. Whatever the future, they have endured with courage and served well.



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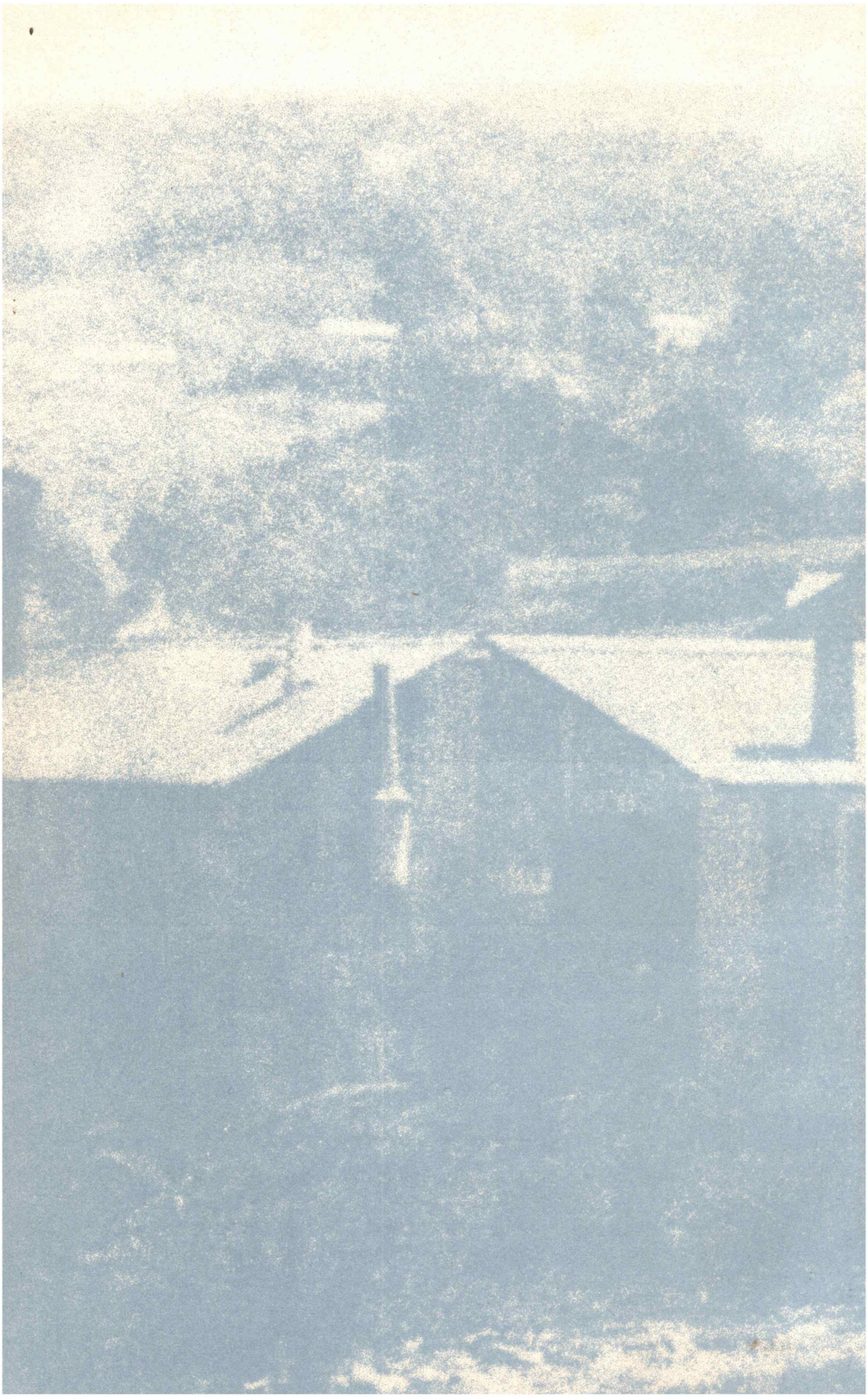

Mill in the Valley

Maurice Kelly